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BCRS.....REDE COLLEGE RECORD SYSTEM
PROGRAMME DOCUMENTATION

(PART 2)



+M.Sc.200

BCRS.....BEEF COLLEGE RECORD SYSTEM

PROGRAMME DOCUMENTATION

(PART 2)

ABSTRACT

THE DATA MANAGEMENT SYSTEM BCRS RECORDS AND MAINTAINS STUDENT RECORDS IN DATA BASE FILES.
THE SYSTEM CONSISTS OF A SUITE OF PL/I (PROGRAMMING LANGUAGE 1) PROGRAMMES DESIGNED TO
RUN ON THE NUMAC IBM 360/67 COMPUTER UNDER MTS (MICHIGAN TERMINAL SYSTEM) IN BATCH MODE.
THIS REPORT TOGETHER WITH 'BCRS.....BEEF COLLEGE RECORD SYSTEM, PROGRAMME DOCUMENTATION,
(PART 1)' DESCRIBES THE PROGRAMMES AND PROVIDES LISTINGS OF THEIR SOURCE CODE, THE INPUT
EXPECTED AND THE OUTPUT PROVIDED.

PROGRAMME DOCUMENTATION (PART 2)

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3. PROGRAMME R.

3.2 PROGRAMME LISTING

THIS SECTION CONTAINS A LISTING OF THE SOURCE CODE OF PROGRAMME R.

```

1 (SUBRG):(STRG):
2 R:PROCEDURE CPTICNS(MAIN);
3 DCL 1 RECORD BASED(PTR),
4 2 (DESNO CHAR(8), NAME CHAR(40)),
5 2 GENERAL,
6 3 (PNAME CHAR(17), (TITLE,YC) CHAR(2), (SEX,REG) CHAR(1)),
7 3 ((DOB,MART,SET,POCC,SUCC,OV25,REL,CNFF) CHAR(1)),
8 3 ((DOB,TFT(2,2)) CHAR(6),AUTH CHAR(10),AUTND CHAR(1)),
9 3 FPOS CHAR(4),
10 2 EDUCATION,
11 3 (SCHNO CHAR(2), SCH(10) CHAR(5)),
12 3 (QUALNO CHAR(2), QUAL(30) CHAR(10)),
13 3 (UNCOL(2) CHAR(21), FPT(2) CHAR(1), FT(2,2) CHAR(6)),
14 3 (UNOTH(2) CHAR(21), DEG(2) CHAR(3), HPCN(2) CHAR(4)),
15 3 (SUB(2) CHAR(36), DAT(2) CHAR(6)),
16 3 (ADIP CHAR(30), ADIPC CHAR(1)),
17 3 DDIPC CHAR(1),
18 3 (OG(2) CHAR(30), OGC(2) CHAR(4)),
19 3 ATO CHAR(1),
20 2 COURSE,
21 3 (LEN CHAR(1), CODES(4) CHAR(3)),
22 3 ((LE,DC(4,24:64)) CHAR(1)),
23 3 (DC1(4,26:30) CHAR(2)),
24 3 ((DC46(4),DC49(4)) CHAR(3)),
25 2 FINALS,
26 3 ((TC,WS,BE,SUBCAR) CHAR(1)),
27 2 ANNPROG,
28 3 AP CHAR(802),
29 3 ((LEAP,FK(100,2)) FIXED BINARY),
30 2 INTEL,
31 3 (INTELB CHAR(2),(VALUES(2,6), ESCALE(2)) FIXED BINARY),
32 3 ((AH4(2,3),PF16(2,16)) FIXED BINARY),
33 3 STEN(2,16) FIXED BINARY;
34
35 /-----*/
36 DCL (NORM(2,16,13) FIXED BINARY, NORM2(2,16,2)
37 FLOAT DECIMAL, (OPSOK(6) CHAR(40), PSOK(5) CHAR(65), GRC CHAR(11),
38 STK(6) CHAR(50),MK(3) CHAR(12),CK(10) CHAR(35),RK(5) CHAR(30),
39 GRK(11) CHAR(30),OAK(4) CHAR(40),ORK(6) CHAR(30)) VARYING
40 ) EXTERNAL;
41 DCL 1 RECL(500),
42 2 NAML CHAR(40),
43 2 DESL CHAR(8),
44 2 (DOBL,START) CHAR(6),
45 2 FIN CHAR(7),
46 2 TYPE CHAR(1),
47 2 DHT CHAR(3),
48 2 DHY CHAR(2),
49 2 DHB CHAR(21);
50 DCL (FILN1,FILN2,DESNO2,DT,DES) CHAR(8),YE CHAR(4),TRANS CHAR(2),
51 (PI,WC,YT,NTT) CHAR(1), (B,DESB) BIT(1), (OPT,KT,YR,NT)
52 FIXED BINARY, BCON BIT(1) INITIAL('1'B), BMAX BIT(1), (VP,CSC)
53 CHAR(1), VPB BIT(1), (VPI,I) FIXED BINARY, DESNO3 CHAR(8);
54 DCL L(10) LABEL INITIAL(L1,L2,L3,L4,L5,L6,L7,L8,L9,L10);
55 DCL CON ENTRY(CHAR(8)), DESOP BIT(1) INITIAL('0'B);

```

```

56  /*-----*/
57  DCL STUDENT FILE RECORD ENV(F(2416));
58  DCL DIC FILE;
59  /******
60  RECIN:PROCEDURE;
61      DCL CNT CHAR(1), (S,Q,K) FIXED BINARY, X5 CHAR(5), X10 CHAR(10),
62      X2 CHAR(2);
63      GET EDIT(NAME,TITLE,SEX,D0B,C0BC,TFT(1,1),MART,REG,SFT,FPOS,POCC,
64      S0CC,OV25,REL,C0NF,YC,AUTHNC)(CCL(9),A(40),X(1),A(2),
65      2(A(1),A(6)),3(A(1)),A(4),5(A(1)),A(2),A(1));
66      GET EDIT(PNAME,AUTH,LEN,CODES(1),CODES(2),DC(1,24),DC(1,25),
67      DC(1,26),DC(1,27),DC(1,29),DC(1,30),DC(1,32),DC(1,34),DC(1,35),
68      DC(1,36),DC(1,37),DC(1,38),CC(1,41),DC(1,42),DC(1,43),DC(1,44),
69      DC(1,45),DC46(1),DC49(1),DC(1,59),DC(1,64))
70      (COL(9),A(17),A(19),A(1),2(A(3)),2(A(1)),4(A(2)),11(A(1)),2(A(3)),
71      2(A(1)));
72  L2: GET EDIT(CONT)(COL(9),A(1));
73  IF CONT='C' THEN
74  DO: GET EDIT(ATO,SCHNO,QUALNO)(A(1),X(1),2(A(2)));
75  S=SCHNO;
76  DO K=1 TO MIN(S,10);
77      GET EDIT(SCH(K))(A(5));
78  END;
79  IF S>10 THEN
80  DO: PUT EDIT(DESN0,'ERROR.....SCHOOL TYPE STORAGE EXCEEDED')
81      (COL(1),A,X(1),A);
82  DO K=11 TO S;
83      GET EDIT(X5)(A(5));
84  IF X5=SUBSTR(DESN0,1,5) THEN
85  DO: GET EDIT(X5)(A(5));
86      GOTO L222;
87  END;
88  END;
89  IF MOD(S,2)=0 THEN GET EDIT(X5)(A(5));
90  Q=QUALNO;
91  DO K=1 TO MIN(Q,30);
92      GET EDIT(QUAL(K))(A(10));
93  L1: IF QUAL(K)=DESN0 || ' ' THEN GOTO L1;
94  END;
95  IF Q>30 THEN
96  DO: PUT EDIT(DESN0,'ERROR.....QUALIFICATION STORAGE EXCEEDED')
97      (COL(1),A,X(1),A);
98  DO K=31 TO Q;
99      GET EDIT(X10)(A(10));
100  L223: IF X10=DESN0 || ' ' THEN GOTO L223;
101  END;
102  END;
103  END; ELSE
104  DO: GET EDIT(CONT)(A(1));
105  IF CONT='1' THEN
106  DO: DO K=1 TO 2;
107      GET EDIT(UNCOL(K),FPT(K),FT(K,1),FT(K,2))
108      (A(21),A(1),2(A(6)));
109  END;
110  GOTO L2;
111  END; ELSE
112  IF CONT='2' | CONT='3' THEN
113  DO: K=CCNT;
114  K=K-1;
115  /* CONVERSION */

```

```

/*-----*/
/* DECLARATION OF FILE (STUDENT)
/* DECLARATION OF FILE (DIC)
/* *****
/* RECCPD INPUT
/* *****
/* VARIABLE DECLARATIONS
/* INPUT GENERAL INFORMATION
/*
/*
/* INPUT COURSE DETAILS
/*
/*
/* INPUT CONTINUATION MARKER
/* TEST FOR CONTINUATION
/* INPUT PREVIOUS EDUCATION
/* -> SCHOOL ATTENDANCES
/*
/* -> INPUT SCHOOL INFORMATION
/*
/* -> NO. ATTENDED >10
/* -> CLASS Q ERROR/WARNING
/*
/* -> IGNORE REMAINING SCHOOLS
/*
/*
/*
/*
/*
/* -> QUALIFICATIONS RECORDED
/*
/* -> INPUT QUALIFICATIONS
/*
/*
/* -> NO. OF QUALIFICATIONS >30
/* -> CLASS Q ERROR/WARNING
/*
/* -> IGNORE REMAINING QUALIFICATIONS
/*
/*
/*
/*
/* INPUT CCNTINUATION NUMBER
/* CONTINUATION ROUTINE 1
/*
/* -> INPUT UNIV. OR COLL. ATTENDED
/*
/*
/* -> BRANCH FOR NEXT CONTINUATION MARKER
/*
/* CONTINUATION ROUTINE 2 OR 3
/*
/*

```



```

176 GET EDIT(VALUES(YR,*),DSCALE(YR),AH4(YR,*),PF16(YR,*))
177 (6(F(2)),F(3),2(F(2)),F(3),16(F(2)));
178 DO K=1 TO 6;
179 IF VALUES(YR,K)<0 | VALUES(YR,K)>60 THEN
180 PUT EDIT(DESNO,'ERROR RETURNED FOR VALUES SCORE',K)
181 (SKIP,COL(1),A,X(1),A,X(1),F(1));
182 END;
183 IF DSCALE(YR)<0 | DSCALE(YR)>300 THEN
184 PUT EDIT(DESNO,'ERROR RETURNED FOR D.SCALE SCORE')
185 (SKIP,COL(1),A,X(1),A);
186 DO K=1 TO 3;
187 IF AH4(YR,K)<0 | AH4(YR,K)>130 THEN
188 PUT EDIT(DESNO,'ERROR RETURNED FOR A.H.4 SCORE',K)
189 (SKIP,COL(1),A,X(1),A,X(1),F(2));
190 END;
191 DO K=1 TO 16;
192 IF PF16(YR,K)<0 | PF16(YR,K)>MNT(K) THEN
193 DO; PUT EDIT(DESNO,'ERROR RETURNED FOR P.F.16 SCORE',K)
194 (SKIP,COL(1),A,X(1),A,X(1),F(2));
195 SW='1'B;
196 END;
197 END;
198 IF SW THEN GOTO L2;
199 DO I=1 TO 16;
200 DO J=1 TO 9;
201 IF PF16(YR,I)<=NORM(NT,I,1) THEN
202 DO; STEN(YR,I)=J;
203 GOTO L1;
204 END; ELSE
205 IF PF16(YR,I)>NORM(NT,I,J) & PF16(YR,I)<=NORM(NT,I,J+1) THEN
206 DO; STEN(YR,I)=J+1;
207 GOTO L1;
208 END;
209 END;
210 L1: END;
211 L2: SUBSTR(INTEL8,YR,1)='*';
212 END;
213 /*****
214 UPDATE:PROCEDURE;
215 DCL INST CHAR(70), X1 CHAR(1), XVAR CHAR(4) VARYING,
216 (I,K,POSEND,POSEQ,J) FIXED BINARY;
217 GET EDIT(X1)(COL(9),A(1));
218 IF X1>LEN THEN PUT EDIT(DESNO,'WARNING...YEAR OF UPDATE > COURSE'
219 ', LENGTH')(COL(1),A,X(1),A,A);
220 GET EDIT(X1)(COL(10),A(1));
221 IF X1='C' THEN
222 DO; PUT EDIT(DESNO,'PROCEEDING TO A FOURTH YEAR')(COL(1),A,
223 X(1),A);
224 LEN='4';
225 END; ELSE IF X1='F' THEN GOTO L2;
226 GET EDIT(INST)(COL(11),A(70));
227 DO I=1 BY 10 TO 70;
228 IF SUBSTR(INST,I,2)='*A' THEN
229 DO; POSEQ=1+INDEX(SUBSTR(INST,I+1),'=');
230 POSEND=1+INDEX(SUBSTR(INST,I+1),'*');
231 IF POSEQ=1 THEN GOTO L3;
232 IF POSEND=1 THEN
233 POSEND=1+INDEX(SUBSTR(INST,I+1),' ');
234 XVAR=SUBSTR(INST,I+2,POSEQ-I-2);
235 K=XVAR;

```

```

/* CONVERSION */

```

```

/* INPUT TEST SCORES
/*
/* TEST VALUES SCORES
/* -> CLASS F ERROR/WARNING
/*
/* TEST C.SCALE SCORE
/* -> CLASS F ERROR/WARNING
/*
/* TEST A.H.4 SCORES
/* -> CLASS F ERROR/WARNING
/*
/* TEST P.F.16 SCORES
/* -> CLASS F ERROR/WARNING
/*
/* -> SET ERROR SWITCH
/*
/* BRANCH IF ERROR SWITCH ON
/* CALCULATE STEN SCORES
/*
/* TEST COURSE LENGTH
/*
/* -> CLASS H ERROR/WARNING
/* INPUT CGNINUATION
/* TEST FOR FOURTH YEAR (IE B.ED. YEAR)
/* -> CLASS R ERRCR/WARNING
/*
/* -> ALTER COURSE LENGTH
/* BRANCH IF FINAL RESULT
/* INPUT FIRST/NEXT CARD
/*
/* -> LOCATE START OF ENTRY
/* -> LOCATE POSITION OF EQUALS SYMBOL
/* -> LOCATE END OF ENTRY
/* -> BRANCH IF EQUALS SYMBOL NOT FOUND
/* -> END OF ENTRY NOT FOUND
/* -> LOCATE END BLANK
/* -> CALCULATE FIELD KEY (LABEL) NUMBER
/*

```


[illegible]

```
356 IF OKB THEN PUT EDIT(OAK(I))(A); ELSE PUT EDIT(STK(I))(A);
357 END;
358 I=INDEX(GRC,REG);
359 IF REG>'1' & REG<='11' & ~OKB THEN
360 PUT EDIT('REGION: ',GRC(I))(COL(10),A,A); ELSE
361 IF OKB THEN PUT EDIT('REGION: NOT CODED PRIOR TO 1972')
362 (COL(10),A);
363 IF SOCC>'1' & (SOCC<='6' & OKB) | (SOCC<='5' & ~OKB) THEN
364 DO; I=SOCC; /* CONVERSION */
365 PUT EDIT('STUDENT OCCUPATION: ')(COL(10),A);
366 IF OKB THEN PUT EDIT(OPSO(I))(A); ELSE PUT EDIT(PSCK(I))(A);
367 END; ELSE
368 IF SOCC=' ' THEN PUT EDIT('STUDENT OCCUPATION: AT SCHOOL')
369 (COL(10),A);
370 IF POCC>'1' & (POCC<='6' & OKB) | (POCC<='5' & ~OKB) THEN
371 DO; I=POCC; /* CONVERSION */
372 PUT EDIT('PARENT OCCUPATION: ')(COL(10),A);
373 IF OKB THEN PUT EDIT(OPSO(I))(A); ELSE PUT EDIT(PSOK(I))(A);
374 END;
375 IF REL>'1' & (REL<='6' & OKB) | (REL<='5' & ~OKB) THEN
376 DO; I=REL; /* CONVERSION */
377 PUT EDIT('RELIGION: ')(COL(10),A);
378 IF OKB THEN PUT EDIT(ORK(I))(A); ELSE PUT EDIT(RK(I))(A);
379 END;
380 IF CONF='Y' THEN PUT EDIT('CONFIRMED WHEN ADMITTED')(COL(10),A);
381 ELSE PUT EDIT('NOT CONFIRMED WHEN ADMITTED')(COL(10),A);
382 IF OV25=' ' THEN PUT EDIT('OVER 25 QUESTION: STUDENT UNDER 25 ',
383 'WHEN ADMITTED')(COL(10),A,A); ELSE IF OV25>'0' & OV25<='9' THEN
384 DO; I=OV25; IF I=0 THEN I=10; /* CONVERSION */
385 PUT EDIT('OVER 25 QUESTION: ',OK(I))(COL(10),2(A));
386 END;
387 IF AUTH=' ' THEN PUT EDIT('AUTHORITY/COUNTRY: ',AUTH,'AUTHOR',
388 'ITY CODE: ',AUTHNO)(COL(10),A,A,COL(10),A,A,A);
389 END;
390 /*****
391 COUPNT:PROCEDURE;
392 PUT EDIT('LENGTH OF COURSE: ',LEN)(COL(10),A,A);
393 IF CODES(1)=' ' THEN PUT EDIT('MAIN SUBJECT CODE: ',CODES(1))
394 (X(3),A,A);
395 IF CODES(2)=' ' THEN PUT EDIT('2ND. PROV CODE: ',CODES(2))
396 (X(3),A,A);
397 PUT EDIT('DETAILS OF COURSE: 24 25 26 27 29 30 32 34 35 ',
398 '36 37 38 41 42 43 44 45 46-48 49-51 59 64')(COL(10),A,A);
399 K=LE; /* CONVERSION */
400 DO I=1 TO K;
401 PUT EDIT(DC(I,24),DC(I,25),DC(I,26),DC(I,27),DC(I,29),
402 ' ',DC(I,30),DC(I,32),DC(I,34),DC(I,35),DC(I,36),DC(I,37),
403 DC(I,38),DC(I,41),DC(I,42),DC(I,43),DC(I,44),DC(I,45),DC46(I),
404 DC49(I),DC(I,59),DC(I,64))(COL(31),A,X(2),A,X(3),3(A),X(1),3(A)
405 ,X(4),A,X(2),7(X(2),A),X(2),3(X(2),A),X(5),A,X(3),A,2(X(4),A));
406 END;
407
408 END;
409 /*****
410 SAQPN:PROCEDURE;
411 PUT EDIT('NO. OF SCHOOLS ATTENDED: ',SCHNO, ' CODED: ')(COL(10),
412 3(A));
413 K=SCHNO; /* CONVERSION */
414 DO I=1 TO K;
415 PUT EDIT(SCH(I))(X(1),A);
416 END;
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416 PUT EDIT('NO. OF QUALIFICATIONS RECORDED: ',QUALNO)
417 (SKIP(2),COL(10),A,A);
418 K=QUALNO;
419 PUT EDIT('QUALIFICATIONS: ')(COL(10),A);
420 DO I=1 TO K;
421 PUT EDIT(QUAL(I))(X(4),A(10));
422 IF MOD(I,6)=7 THEN PUT EDIT(' ')(COL(24),A);
423 END;
424 IF UNCOL(1)=1 ' I UNCOL(2)=1 ' THEN
425 DO; PUT EDIT('UNIV. OR COLL. ATTENDED FOR DEGREE STUDY','F/P TIME'
426 'FROM','TO')(SKIP(2),COL(10),A,X(4),A,X(8),A,X(10),A);
427 PUT EDIT(UNCOL(1),FPT(1),CDATE(FT(1,1)),CCATE(FT(1,2)),
428 UNCOL(2),FPT(2),CDATE(FT(2,1)),CDATE(FT(2,2)))(2(COL(10),
429 A,COL(50),A,COL(66),A,COL(78),A));
430 END;
431 IF UNOTH(1)=1 ' I UNOTH(2)=1 ' THEN
432 DO; PUT EDIT('UNIV. OR OTHER AWARDDING BODY','TITLE','F/P,C/D',
433 'SUBJECTS','DATE')(SKIP(2),COL(10),A,COL(43),A,CCL(50),A,
434 COL(50),A,COL(103),A);
435 PUT EDIT(SUBSTR(UNOTH(1),2),DEG(1),HPCD(1),SUB(1),
436 CDATE(DAT(1)),SUBSTR(UNOTH(2),2),DEG(2),HPCD(2),
437 SUB(2),CDATE(DAT(2)))(2(COL(10),A,COL(45),A,
438 COL(53),A,COL(59),A,COL(99),A));
439 END;
440 IF ADIPC=1 ' THEN PUT EDIT('DIPLOMA IN ART AND DESIGN',ADIPC,
441 ADIPC)(SKIP(2),COL(10),A,X(1),A,X(1),A);
442 IF DDIPC=1 ' THEN PUT EDIT('NATIONAL DIPLOMA IN DESIGN',DDIPC)
443 (SKIP(2),COL(10),A,X(1),A);
444 IF OQ(1)=1 ' I OQ(2)=1 ' THEN
445 DO; PUT EDIT('OTHER ART QUALIFICATIONS: ')(SKIP(2),COL(10),A);
446 PUT EDIT(OQ(1),OQC(1),OQC(2),CQC(2))(2(COL(36),A,X(1),A));
447 END;
448 IF ATO=1 ' THEN PUT EDIT('STUDENT EXCEPTED BY A.T.O. FROM',
449 'EXAMINATION REQUIREMENTS')(SKIP(2),COL(10),A,A);
450 END;
451 /*****
452 APPNT:PROCEDURE;
453 PUT EDIT('ANNUAL PROGRESS VECTOR: ')(COL(10),A);
454 K=35;
455 DO I=1 TO 100;
456 IF FK(I,1)=0 THEN
457 DO; PUT EDIT('A',I,'=',SUBSTR(AP,FK(I,1),FK(I,2)))
458 (COL(K),A,P'999',A,A);
459 IF K+FK(I,2)+5>=95 I K=95 THEN K=35; ELSE
460 IF FK(I,2)+5>=15 THEN K=K+30; ELSE K=K+15;
461 END;
462 END;
463 IF TTFT(2,1)=1 ' & SUBSTR(TTFT(2,1),1,4)=1 WITH' THEN
464 DO; PUT EDIT('FINAL RESULT:',TEACHER'S CERTIFICATE',TC,
465 'WING SCIENCE',WS,'B.ED.',BE)(COL(10),A,3(COL(25),A,
466 COL(50),A));
467 PUT EDIT('SUBSEQUENT CAREER:',SUBCAR)(COL(10),A,X(2),A);
468 END;
469 END;
470 /*****
471 IF VPI=3 THEN PUT PAGE;
472 PUT EDIT(DESNO,NAME)(COL(1),A,X(1),A);
473 IF VPI=0 THEN
474 DO; PUT EDIT('RECORDED AS HAVING WITHDRAWN ON',CDATE(TTFT(1,2)),
475 'REASON CODED AS',SUBSTR(TTFT(2,1),6,1))(COL(10),A,
```

```

476 /** NO. OF QUALIFICATIONS RECORDED
477 /**
478 /**
479 /** -> QUALIFICATIONS RECORDED
480 /** -> PRINTED 6 PER LINE
481 /**
482 /** UNIV. OR COLL. ATTENDED
483 /** -> TITLES
484 /**
485 /** -> UNIV. OR COLL.
486 /**
487 /**
488 /** UNIV. OR OTHER AWARDS
489 /** -> TITLES
490 /**
491 /** -> UNIV. OR OTHER
492 /**
493 /**
494 /** ART DIPLOMA
495 /**
496 /** NATIONAL DIPLOMA
497 /**
498 /** OTHER ART QUALIFICATIONS
499 /** -> TITLES
500 /** -> QUALIFICATIONS
501 /**
502 /** A.T.O. EXCEPTED
503 /**
504 /**
505 /*****
506 /** ANNUAL PROGRESS PRINT ROUTINE
507 /*****
508 /** SET COLUMN COUNTER
509 /**
510 /** TEST FIELD KEYS
511 /** -> OUTPUT ENTRY
512 /**
513 /** -> RESET COLUMN COUNTER
514 /**
515 /**
516 /**
517 /** OUTPUT FINAL RESULTS
518 /** -> TEACHERS' CERTIFICATE
519 /** -> WING SCIENCE, B.ED.
520 /**
521 /** -> SUBSEQUENT CAREER
522 /**
523 /**
524 /*****
525 /** NEW PAGE IF FULL PRINT
526 /** OUTPUT DES.NO. & NAME
527 /** WITHDRAWAL VERIFICATION
528 /** -> DATE OF WITHDRAWAL
529 /** -> REASCN FOR WITHDRAWAL
530 /**
```

```

476 3(X(1),A));
477 RETURN;
478 END; ELSE
479 IF VPI=1 THEN
480 DO; PUT EDIT('RECORDED AS HAVING CHANGED ')(COL(1),A);
481 IF CSC='C' THEN PUT EDIT('COURSE')(A); ELSE
482 PUT EDIT('SUBJECT')(A);
483 CALL CCUPNT;
484 RETURN;
485 END; ELSE
486 IF VPI=2 THEN
487 DO; PUT EDIT('RECORD UPDATED, ANNUAL PROGRESS VECTOR OR ',
488 'FINAL RESULT')(COL(10),A,A);
489 CALL APPNT;
490 RETURN;
491 END; ELSE
492 IF VPI=3 THEN
493 DO; PUT SKIP(2);
494 CALL GENPNT;
495 PUT SKIP(2);
496 CALL SAGPNT;
497 PUT SKIP(2);
498 CALL COUPNT;
499 PUT SKIP(2);
500 CALL APPNT;
501 END;
502 END;
503 /*****
504 SPNT1:PROCEDURE;
505 DCL (I,N) FIXED BINARY, COD CHAR(3), B BIT(1);
506 N=KT;
507 B='0'B;
508 N=N-1;
509 DO I=1 TO N;
510 IF DHT(I) || TYPE(I) || NAML(I)>DHT(I+1) || TYPE(I+1) ||
511 NAML(I+1) THEN
512 DO; RECL(KT+1)=RECL(I);
513 RECL(I)=RECL(I+1);
514 RECL(I+1)=RECL(KT+1);
515 B='1'B;
516 END;
517 END;
518 IF B THEN GOTO L1;
519 COD=DHT(1); B='0'B;
520 IF COD=' ' THEN
521 DO; PUT EDIT('NO MAIN CCOURSE RECORDED','DATE OF LISTING',DT,
522 'TYPE','D.E.S.NO','NAME')(PAGE,COL(1),A,SKIP(3),CCL(1),A,X(1),
523 A,SKIP(3),COL(1),A,COL(7),A,COL(17),A);
524 PUT SKIP;
525 B='1'B;
526 END;
527 DO I=1 TO KT;
528 IF -B THEN
529 DO; PUT EDIT('COURSE CODE',COD,'DATE OF LISTING',DT,'TYPE',
530 'D.E.S.NO','NAME')(PAGE,CCL(1),A,X(1),A,SKIP(3),COL(1),A,
531 X(1),A,SKIP(3),COL(1),A,COL(7),A,COL(17),A);
532 PUT SKIP;
533 B='1'B;
534 END;
535 IF DHT(1)~=COD THEN

```

[illegible]


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596 DO: SIGNAL ENDPAGE(SPRINT);
597 X2=TYPE(1) || SUBSTR(DHB(1),1,1);
598 END;
599 IF TYPE(1)='P' THEN PUT EDIT('PGCE')(SKIP,COL(1),A); ELSE
600 PUT EDIT(TYPE(1))(SKIP,COL(4),A);
601 PUT EDIT(DES(1),NAML(1),SUPSTR(DOPL(1),1,2),'/',SURSTR(
602 DOBL(1),3,2),'/',SUBSTR(DOBL(1),5,2),START(1),'TC',FIN(1))
603 (COL(7),A,COL(17),A,COL(61),5(A),CCL(71),A(5),X(1),A,X(1),A(5)
604 );
605 IF DHB(1)=' ' THEN
606 PUT EDIT(DHT(1),19' || DHV(1),SUBSTR(DHB(1),2))
607 (COL(88),A,2(X(2),A));
608 END;
609 L21: PUT EDIT('NO. OF STUDENTS',KT)(SKIP(2),COL(1),A,X(2),F(3));
610 ON ENDPAGE(SPRINT) SYSTEM;
611 END;
612 /*****
613 ON CONVERSION
614 BEGIN; PUT EDIT('*****DATA CONVERSION ERROR*****',
615 'CURRENT D.E.S.NO.',DFSNO)(SKIP(2),A,X(1),A,X(1),A);
616 END;
617 ON ENDFILE(SCARDS) GOTO L09;
618 L39: GET EDIT(FILN1,FILN2,YE)(COL(1),A(8),X(1),A(8),X(1),A(4));
619 GET LIST(OPT);
620 IF OPT<1 | OPT>10 THEN
621 DO: PUT EDIT('OPTION INVALID...PROGRAM TERMINATED')
622 (SKIP,COL(1),A);
623 GOTO L09;
624 END;
625 TRANS='CO'; B='O'B; PI='C'; YT='O'; NTT='O'; VP='O';
626 DES=''; BMAX='O'B;
627 GET DATA;
628 IF DES=' ' THEN
629 DO: DESB='1'B;
630 IF ~DESOP THEN
631 DO: OPEN FILE(DIC) CUPUT TITLE(DES);
632 DESOP='1'B;
633 END;
634 END; ELSE DESB='O'B;
635 IF VP='1' THEN VPB='1'B; ELSE VPB='O'B;
636 IF NTT='1' THEN NTT=1; ELSE IF NTT='2' THEN NTT=2; ELSE NTT=1;
637 IF YT='F' THEN YR=1; ELSE IF YT='L' THEN YR=2; ELSE YR=1;
638 PUT EDIT('BCRS...BEDE COLLEGE RECORD SYSTEM',PROGRAMME R',
639 'OPTION REQUESTED',OPT,'YEAR REQUESTED',YE)(PAGE,COL(1),A,
640 SKIP(2),COL(1),A,COL(1),A,COL(32),F(2),COL(1),A,COL(30),A);
641 PUT SKIP(2);
642 IF DES=' ' THEN PUT EDIT('DES O/P REQUIRED')(COL(1),A);
643 IF PI='O' THEN PUT EDIT('PRINT INDICATOR',PI)
644 (COL(1),A,COL(33),A);
645 IF YT='O' THEN PUT EDIT('YEAR OF TEST',YT)(COL(1),A,COL(33),A);
646 IF NTT='O' THEN PUT EDIT('NORM TABLE REQUIRED',NTT)
647 (COL(1),A,CCL(33),A(1));
648 IF VP='O' THEN PUT EDIT('VERIFICATION PRINT REQUIRED')(COL(1),A);
649 PUT SKIP(4);
650 IF BCON & (OPT=2 | (OPT=6 & PI='1') | (OPT=9 & VPB)) THEN
651 DO: CALL CON(FILN2);
652 BCON='O'B;
653 END;
654 GOTO L(OPT);
655 /

```

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/* -> OUTPUT TITLES
/* -> RECORD NEW TYPE AND DEGREE
/*
/* -> OUTPUT TYPE
/*
/* -> CUPUT DES.NO., NAME, DCB, AND
/* -> OUTPUT FROM-TO DATES
/*
/* -> TEST FOR DEGREE
/* -> CUPUT DEGREE INFORMATION
/*
/*
/* OUTPUT SAMPLE SIZE 'KT'
/* RESET ENDPAGE ROUTINE
/*
/* *****
/* SET DATE CONVERSION ERROR ROUTINE
/* -> OUTPUT MESSAGE
/* -> OUTPUT CURRENT DES. NO.
/* END CONVERSION ROUTINE
/* BRANCH ON ENDFILE (SCARDS)
/* INPUT OPTION PARAMETER CARD
/* INPUT OPTION
/* TEST OPTION
/* -> CLASS A EPRCR/WARNING
/*
/* -> BRANCH TO PROGRAMME TERMINATION
/*
/* INITIALISE OPTION PARAMETERS
/*
/* INPUT OPTION PARAMETERS
/* TEST FOR D.E.S. OUTPUT
/* -> SET D.E.S. OUTPUT BIT
/* -> TEST TRANSACTION FILE STATUS
/* -> OPEN TRANSACTION FILE
/* -> SET STATUS BIT
/*
/*
/* VERIFY OPTICN PARAMETERS
/* PARAMETER NTT
/* PARAMETER YT
/* OUTPUT TITLES
/*
/*
/* OUTPUT OPTICN PARAMETERS IN EFFECT, DES
/* -> PI
/*
/* -> YT
/* -> NTT
/*
/* -> VP
/*
/* -> TEST FOR PROCEDURE CON
/* -> CALL CON (INPUT OF DATA CONSTANTS)
/* -> SET CON BIT
/*
/* BRANCH TO REQUIRED OPTION
/*

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656 L1:L7:OPEN FILE(STUDENT) OUTPUT TITLE(FILELN1);
657 ALLOCATE RECORD;
658 L11: GENERAL=''; EDUCATION=''; COURSE=''; AP=''; INTEL=0;
659 INTELB=''; LEAP=1; FK=C;
660 GET EDIT(DESN0)(COL(1),A(8));
661 IF DESN0='*****' THEN
662 DO; CLOSE FILE(STUDENT);
663 FREE RECORD;
664 GOTO L39;
665 END;
666 CALL RECIN;
667 CALL CHECKREC;
668 IF OPT=7 & DESB THEN PUT FILE(DIC) EDIT(DESN0 || '15')(COL(1),A);
669 WRITE FILE(STUDENT) FROM(RECCRD);
670 GOTO L11;
671 /*-----*/
672 L2:L3:L4:L8:L9:OPEN FILE(STUDENT) UPDATE TITLE(FILELN1);
673 ON ENDFILE(STUDENT)
674 BEGIN; CLOSE FILE(STUDENT);
675 OPEN FILE(STUDENT) UPDATE TITLE(FILELN1);
676 GOTO L41;
677 END;
678 L42: GET EDIT(DESN02)(COL(1),A(8));
679 IF DESN02='*****' THEN
680 DO; CLOSE FILE(STUDENT);
681 GOTO L39;
682 END;
683 L41: READ FILE(STUDENT) SET(PTR);
684 IF DESN0=DESN02 THEN
685 DO; IF B THEN B='0'B;
686 IF OPT=2 THEN CALL ITRCIN; ELSE
687 IF OPT=3 THEN
688 DO; CALL UPDATE;
689 IF VPB THEN
690 DO; VPI=2;
691 CALL PRINT;
692 END;
693 IF DESB & SUBSTR(TTFT(2,1),1,4)='LEFT' THEN
694 PUT FILE(DIC) EDIT(DESN0 || '99')(COL(1),A);
695 END; ELSE
696 IF OPT=4 THEN
697 DO; GET EDIT(TTFT(1,2),WC)(CCL(10),A(6),X(1),A(1));
698 TTFT(2,1)='WITH ' || WC;
699 IF VPB THEN
700 DO; VPI=0;
701 CALL PRINT;
702 END;
703 IF DESB THEN PUT FILE(DIC) EDIT(DESN0 || '12')(COL(1),A);
704 END; ELSE
705 IF OPT=8 THEN
706 DO; I=LE;
707 IF LE='4' THEN LE=SUBSTR('1234',I+1,1);
708 /* CONVERSION */
709 I=LE;
710 GET EDIT(CSC,DC(1,24),DC(1,25),DC(1,26),DC(1,27),
711 DC(1,29),DC(1,30),DC(1,32),DC(1,34),DC(1,35),DC(1,36),
712 DC(1,37),DC(1,38),DC(1,41),DC(1,42),DC(1,43),DC(1,44),
713 DC(1,45),DC46(I),DC49(I),DC(1,59),DC(1,64))(COL(10),A(1),
714 COL(52),2(A(1)),4(A(2)),11(A(1)),2(A(3)),2(A(1)));
715 CODES(1)=DC46(I);
CODES(2)=DC49(I);

```

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/* OPTIONS 1 AND 7
/* ALLOCATE STORAGE FOR RECORD
/* INITIALISE RECORD VARIABLES
/*
/* INPUT DES.NC.
/* TEST FOR INPUT TERMINATOR
/* -> CLOSE FILE
/* -> FREE STORAGE
/* -> BRANCH TO PROGRAMME CONTROL SECTION
/*
/* CALL RECORD INPUT
/* CALL RECORD CHECKING ROUTINE
/* OUTPUT TO TRANSACTION FILE
/* WRITE RECORD TO FILE
/* BRANCH FOR NEXT RECORD
/*-----*/
/* CPTICNS 2,3,4,8 AND 9
/* SET ENDFILE (STUDENT) ROUTINE
/* -> CLOSE FILE
/* -> OPEN FILE
/* -> BRANCH FOR FIRST RECORD
/* END ENDFILE ROUTINE
/* INPUT REQUIRED DES.NC.
/* TEST FOR INPUT TERMINATOR
/* -> CLOSE FILE
/* -> BRANCH TO PROGRAMME CONTROL SECTION
/*
/* READ FIRST/NEXT RECORD
/* TEST RECORD DES.NO. WITH REQUIRED DES.NO
/* RECORD 'FOUND' ROUTINE, RESET BIT
/* -> OPTION 2, INTEL.TEST INPUT
/* -> OPTION 3
/* -> CALL ANNUAL UPDATE ROUTINE
/* -> TEST FOR VERIFICATION PRINT
/* -> SET VERIFICATION PRINT INDICATOR
/* -> CALL FULL PRINT ROUTINE
/*
/* -> TEST FOR DES. OUTPUT
/* -> OUTPUT TO TRANSACTION FILE
/*
/* -> OPTION 4
/* -> INPUT DATE & REASON FOR WITHDRAWAL
/* -> RECORD STUDENT WITHDRAWAL
/* -> TEST FOR VERIFICATION PRINT
/* -> SET VERIFICATION PRINT INDICATOR
/* -> CALL FULL PRINT ROUTINE
/*
/* -> OUTPUT TO TRANSACTION FILE
/*
/* -> OPTION 8
/* -> SET I=LATEST ENTRY
/* -> RESET LATEST ENTRY
/* -> SET I=NEW LATEST ENTRY
/* -> INPUT NEW DETAILS OF COURSE
/*
/* -> RECORD NEW MAIN SUBJECT
/* -> RECORD NEW PROVISIONAL SUBJECT
/*

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716 IF VPR THEN
717 DO: VPI=1;
718 CALL PRINT;
719 END;
720 IF DESB THEN
721 PUT FILE(DIC) EDIT(DESNO 11 '11')(CCL(1),A);
722 END; ELSE
723 IF OPT=9 THEN
724 DO: GET DATA;
725 IF VPI=3 THEN
726 DO: VPI=3;
727 CALL PRINT;
728 END;
729 END;
730 REWRITE FILE(STUDENT) FFCM(RECORD);
731 GOTO L42;
732 END; ELSE
733 DO: IF ~B THEN
734 DO: DESNO3=DESNO;
735 B='1'B;
736 END; ELSE
737 DO: IF DESNO=DESNO3 THEN
738 DO: PUT EDIT(DESNO2,'CANNOT BE FOUND....DATA IGNORED')
739 (COL(1),A,X(1),A);
740 B='0'R;
741 GOTO L42;
742 END;
743 END;
744 GOTO L41;
745 END;
746 END;
747 L5:L6:OPEN FILE(STUDENT) INPUT TITLE(FILN1);
748 ON ENDFILE(STUDENT)
749 BEGIN; DT=DATE;
750 DT=SUBSTR(DT,4,2) 11 '/' 11 SUBSTR(DT,1,2) 11 '/' 11
751 SUBSTR(DT,7,2);
752 IF OPT=5 THEN CALL DESPNT; ELSE
753 IF OPT=6 THEN
754 DO: IF PI='2' THEN
755 DO: PUT EDIT(VE,'FILE.....',KT,'STUDENTS INCLUDED',
756 '.....NUMBERS FOLLOWED BY '...' SHOW THAT THE ',
757 'STUDENT HAS WITHDRAWN FROM THE COLLEGE','NUMBERS',
758 ' FOLLOWED BY '...' SHOW THAT THE STUDENT HAS',
759 ' COMPLETED HIS COURSE AND LEFT')
760 (PAGE,COL(1),A,X(1),A,F(3),X(1),A),
761 SKIP,COL(4),3(A));
762 IF KT=0 THEN CALL SPNT; ELSE GOTO L38;
763 END; ELSE
764 IF PI='3' THEN
765 DO: PUT EDIT(VE,'FILE.....',KT,'STUDENTS INCLUDED')
766 (PAGE,COL(1),A(4),X(1),A,F(3),X(1),A);
767 IF KT=0 THEN CALL SPNT; ELSE GOTO L38;
768 END; ELSE
769 IF PI='4' THEN
770 DO: PUT EDIT(VE,'FILE.....',KT,'STUDENTS INCLUDED')
771 (PAGE,COL(1),A(4),X(1),A,F(3),X(1),A);
772 IF KT=0 THEN CALL SPNT;
773 END;
774 END;
775 L38: PUT EDIT('DATE OF LISTING',DT)(SKIP(2),COL(1),A,X(2),A);

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/* -> TEST FOR VERIFICATION PRINT
/* -> SET VERIFICATION PRINT INDICATOR
/* -> CALL FULL PRINT ROUTINE
/*
/* -> TEST FOR DES. OUTPUT
/* -> OUTPUT TO TRANSACTION FILE
/*
/* -> OPTION 9
/* -> INPUT SPECIFIC ALTERATION(S)
/* -> TEST FOR VERIFICATION PRINT
/* -> SET VERIFICATION PRINT INDICATOR
/* -> CALL FULL PRINT ROUTINE
/*
/*
/* -> REWRITE RECORD TO FILE
/* -> BRANCH FOR NEXT REQUIRED DES.NO.
/* -> END RECCRD FOUND ROUTINE
/* RECCRD 'NCT FOUND' ROUTINE
/* -> RECCRD CURRENT DES.NO.
/* -> SET 'RECCRD FOUND' BIT
/*
/* -> TEST FOR COMPLETE FILE CYCLE
/* -> CLASS C ERROR/WARNING
/*
/* -> RESET 'RECORD FOUND' BIT
/* -> BRANCH FOR NEXT REQUIRED DES.NO.
/*
/*
/* -> BRANCH FOR NEXT RECORD
/* -> END RECORD NOT FOUND ROUTINE.
/*
/*
/* -> OPTIONS 5,6 AND 10
/* SET ENDFILE (STUDENT) ROUTINE
/* -> CALCULATE DATE
/*
/*
/* -> OPTION 5, CALL DES. LISTING ROUTINE
/* -> OPTION 6
/* -> PRINT INDICATOR 2
/* -> OUTPUT TITLES
/* -> OUTPUT SAMPLE SIZE 'KT'
/*
/*
/*
/*
/* -> TEST KT, BRANCH OR OUTPUT ROUTINE 1
/*
/*
/* -> PRINT INDICATOR 3
/* -> OUTPUT TITLES & SAMPLE SIZE 'KT'
/*
/*
/* -> TEST KT, BRANCH OR OUTPUT ROUTINE 1
/*
/*
/* -> PRINT INDICATOR 4
/* -> OUTPUT TITLES & SAMPLE SIZE 'KT'
/*
/*
/* -> TEST KT, CALL OUTPUT ROUTINE 2
/*
/*
/* -> OUTPUT DATE OF LISTING
/*

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776 IF BMAX THEN
777 DO: BMAX='C'B;
778 RECL=''; KT=0;
779 GOTO L78;
780
781 END;
782 CLOSE FILE(STUDENT);
783 GOTO L39;
784
785 END;
786 IF OPT=6 & PI='1' THEN VPI=3;
787 IF OPT=5 | OPT=6 THEN
788 DO: RECL='';
789 KT=0;
790
791 END;
792 READ FILE(STUDENT) SET(PT);
793 IF OPT=5 | OPT=10 THEN
794 DO: IF SUBSTR(DESNO,1,2)=SUBSTR(TTFT(1,1),5,2) THEN
795 DO: PUT EDIT(DESNO,'ADMITTED IN YEAR','19' ||
796 SUBSTR(DESNO,1,2))(SKIP,COL(1),A,X(1),A,X(2),A);
797 GOTO L12;
798
799 END;
800 IF OPT=5 THEN
801 DO: IF KT=499 THEN
802 PUT EDIT('*****WARNING***** MAXIMUM SIZE REACHED',
803 '...FILE DIVIDED')(COL(1),A,A);
804 BMAX='1'B;
805 SIGNAL ENDFILE(STUDENT);
806
807 END;
808 KT=KT+1;
809 DESL(KT)=DESNO;
810 NAMEL(KT)=NAME;
811 DOBL(KT)=DOB;
812 START(KT)=DC1(1,26) || '/' || DC1(1,27);
813 FIN(KT)=DC1(1,29) || '/' || DC1(1,30);
814 IF DC(1,59)='1' THEN
815 DO: TYPE(KT)='P';
816 IF UNOTH(1)= ' ' THEN
817 DO: DHT(KT)=DEG(1);
818 DHY(KT)=SUBSTR(DATT(1),5,2);
819 DHB(KT)=UNOTH(1);
820
821 END; ELSE
822 IF UNCOL(1)= ' ' THEN
823 DO: DHY(KT)=SUBSTR(FT(1,2),5,2);
824 DHB(KT)= ' ' || UNCOL(1);
825
826 END;
827 IF LEN='1' | LEN='2' | LEN='3' THEN TYPE(KT)=LEN; ELSE
828 DO: PUT EDIT(DESNO,'TYPE WARNING....SET TO 3')
829 (SKIP,COL(1),A,X(1),A);
830 TYPE(KT)='3';
831
832 END;
833 END; ELSE
834 IF OPT=6 THEN
835 DO: IF PI='1' THEN CALL PRINT; ELSE
836 IF PI='2' | PI='3' | (PI='4' & TTFT(1,2)= ' ') THEN
837 DO: IF KT=499 THEN
838 DO: PUT EDIT('*****WARNING***** MAXIMUM SIZE REAC',
839 'HED...FILE DIVIDED')(COL(1),A,A);
840 BMAX='1'B;
841 SIGNAL ENDFILE(STUDENT);
842
843
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836      END;
837      KT=KT+1;
838      DESL(KT)=DESNQ;
839      IF TTFT(1,2)=-' THEN
840          FIN(KT)=TTFT(1,2);
841          IF TTFT(2,1)=-' THEN
842              IF SUBSTR(TTFT(2,1),1,4)='WITH' THEN
843                  SUBSTR(FIN(KT),7,1)='*'; ELSE SUBSTR(FIN(KT),7,1)='+';
844              IF PI='3' THEN
845                  DO; NAML(KT)=NAME;
846                      DOBL(KT)=DOB;
847                      START(KT)=TTFT(1,1);
848                  END; ELSE
849                      IF PI='4' THEN
850                          DO; NAML(KT)=NAME;
851                              DHT(KT)=CODES(1);
852                              I=LE;
853                              IF DC(1,59)='1' THEN TYPE(KT)='P'; ELSE
854                                  IF LEN>'1' & LEN<='4' THEN TYPE(KT)=LEN; ELSE
855                                      DO; PUT EDIT(DESNQ,'TYPE WARNING.....SFT TO 3')
856                                          (COL(1),A,X(1),A);
857                                          TYPE(KT)='3';
858                                      END;
859                                  END;
860                              END;
861                          END; ELSE
862                              IF OPT=10 & DESR THEN PUT FILE(DIC) EDIT(DESNQ || '01')(COL(1),A);
863                              GOTO L12;
864                          /*
865                          L09: IF DESOP THEN CLOSE FILE(DIC);
866                          PUT PAGE;
867                          END;
868                      /*
869                      *PROCESS;
870                      *
871                      CON:PROC(FILN2);
872                      DCL FILN2 CHAR(8);
873                      DCL (I,J,K) FIXED BINARY, AK(3,26) FIXED BINARY EXTERNAL,
874                          (AUTR(*) CHAR(19), AUTR1(*) CHAR(3), ATAB(*) CHAR(3), ATAB1(*)
875                          FIXED BINARY) CONTROLLED EXTERNAL, (ALPHA CHAR(26), NALC FIXED
876                          BINARY) EXTERNAL;
877                      DCL (SCK(9) CHAR(60), PSOK(5) CHAR(65), STK(6) CHAR(50),
878                          MK(3) CHAR(12), OK(10) CHAR(35), RK(5) CHAR(30), GRC CHAR(11),
879                          GRK(11) CHAR(30), OAK(4) CHAR(40), ORK(6) CHAR(30), OPSOK(6)
880                          CHAR(40)) VARYING EXTERNAL;
881                      DCL NORM(2,16,10) FIXED BINARY EXTERNAL;
882                      DCL NORM2(2,16,2) FLOAT DECIMAL EXTERNAL;
883                      /*
884                      DCL CONST FILE;
885                      /*
886                      OPEN FILE(CCNST) INPUT TITLE(FILN2);
887                      DO I=1 TO 26;
888                          GET FILE(CCNST) LIST(AK(1,I));
889                      END;
890                      AK(2,1)=1;      AK(3,1)=AK(2,1)+AK(1,1)-1;
891                      DO I=2 TO 26;
892                          AK(2,I)=AK(3,I-1)+1;
893                          AK(3,I)=AK(1,I)+AK(2,I)-1;
894                      END;
895                      N=SUM(AK(1,*));

```

[illegible]

```

896 ALLOCATE AUTR(N),AUTR1(N);
897 DO K=1 TO 26;
898     DO I=AK(2,K) TO AK(3,K);
899         GET FILE(CONST) EDIT(AUTR(I),AUTR1(I))
900         (COL(1),A(19),COL(40),A(3));
901     END;
902 END;
903 GET FILE(CONST) EDIT((OAK(K) DO K=1 TO 4))(4(COL(1),A(40)));
904 GET FILE(CONST) EDIT((OR(K) DO K=1 TO 6))(6(COL(1),A(3)));
905 GET FILE(CONST) EDIT((OPSOK(K) DO K=1 TO 6))(6(COL(1),A(40)));
906 GET FILE(CONST) EDIT((SCK(I) DO I=1 TO 9))(9(COL(1),A(60)));
907 GET FILE(CONST) EDIT((PSOK(I) DO I=1 TO 5))(5(COL(1),A(65)));
908 GET FILE(CONST) EDIT((STK(I) DO I=1 TO 6))(6(COL(1),A(50)));
909 GET FILE(CONST) EDIT((MK(I) DO I=1 TO 3))(3(COL(1),A(12)));
910 GET FILE(CONST) EDIT((OK(I) DO I=1 TO 10))(10(COL(1),A(35)));
911 GET FILE(CONST) EDIT((RK(I) DO I=1 TO 5))(5(COL(1),A(30)));
912 GET FILE(CONST) EDIT((GRK(I) DO I=1 TO 11))(11(COL(1),A(30)));
913 GET FILE(CONST) EDIT(ALPHA)(COL(1),A(26));
914 GRC=SUBSTR(ALPHA,1,11);
915 GET FILE(CONST) EDIT(NALC)(COL(1),F(3));
916 ALLOCATE ATAB(NALC),ATAB1(NALC);
917 GET FILE(CONST) SKIP;
918 GET FILE(CONST) EDIT((ATAB(I),ATAB1(I) DO I=1 TO NALC))
919     (X(2),A(3),X(1),F(2));
920 DO I=1 TO 2;
921     DO J=1 TO 16;
922         GET FILE(CONST) LIST((NORM(I,J,K) DO K=1 TO 10));
923         GET FILE(CONST) LIST((NORM2(I,J,K) DO K=1 TO 2));
924     END;
925 END;
926 CLOSE FILE(CONST);
927 END;

```

```

/* -> ALLOCATE STORAGE
/*
/*
/* -> INPUT AUTHORITY/COUNTRY & CODES
/*
/*
/*
/*
/* INPUT AREA CODES (PRE 1972)
/* INPUT RELIGION CODES (PRE 1972)
/* INPUT PARENT/STUDENT OCC.CODES (PRE 1972)
/* INPUT SCHOOL CODES
/* INPUT PARENT/STUDENT OCC. CODES
/* INPUT SETTLEMENT CODES
/* INPUT MARITAL STATUS CODES
/* INPUT EVER 25 OCC. CODES
/* INPUT RELIGION CODES
/* INPUT REGION CODES
/* INPUT ALPHABET
/* GEOGRAPHICAL REGION KEYS
/* INPUT A*LEVEL NUMBER
/* -> ALLOCATE STORAGE
/*
/* -> INPUT A*LEVEL CODES & COLUMNS
/*
/*
/* INPUT NORM TABLES
/*
/*
/* CLOSE CONST
/* END PROCEDURE CON
/*

```

3. PROGRAMME R.

3.3 COMPILER LISTING

THIS SECTION CONTAINS A LISTING OF THE OUTPUT PROVIDED BY THE PL/1 F COMPILER DURING THE COMPILATION OF PROGRAMME R.

THE JCL WAS AS FOLLOWS:

```
$RUN *PL1 SPUNCH=-R
```

PROGRAMME P SOURCE DECK

PROCESS:

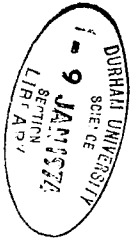
PROCEDURE CON SOURCE DECK

\$ENDFILE

THE COMPLETE LIST OF OPTICNS USED DURING THIS COMPI LATION IS--

EBCDIC
CHAR60
NOMACRC
SOURCE2
NOMACDCK
COMP
SOURCE
ATP
XREF
NOEXTREF
NOLIST
NLOAD
DECK
FLAGW
STMT
SIZE=010P
LINECNT=060
OPT=01
SCRMGIN=(001,072)
NEST
OPLIST

OPTIONS IN EFFECT
OPTIONS IN EFFECT
OPTIONS IN EFFECT
EBCDIC,CHAR60,NOMACRO,SOURCE2,NOMACDCK,COMP,SOURCE,ATR,XREF,NOEXTREF,NOLIST,NLOAD,
DECK,FLAGW,STMT,SIZE=010P,LINECNT=060,OPT=01,SCRMGIN=(001,072),
NEST,OPLIST



STMT LEVEL NEST

1	1	(SUBRG):(STRG):	R0000010
		R:PROCEDURE OPTIONS(MAIN):	R0000020
2	1	DCL 1 RECORD BASED(PTR),	R0000030
		2 (DESNO CHAR(8), NAME CHAR(4)),	R0000040
		2 GENERAL,	R0000050
		3 (PNAME CHAR(17), (TITLE,YC) CHAR(2), (SEX,REG) CHAR(1)),	R0000060
		3 ((DOB,MART,SET,POCC,SUCC,OV25,REL,CNFI) CHAR(1)),	R0000070
		3 ((DOB,TFT(2,2)) CHAR(6),AUTH CHAR(19),AUTHNO CHAR(1)),	R0000080
		3 FPOS CHAR(4),	R0000090
		2 EDUCATION,	R0000100
		3 (SCHNO CHAR(2), SCH(10) CHAR(5)),	R0000110
		3 (QUALNO CHAR(2), QUAL(30) CHAR(10)),	R0000120
		3 (UNCOL(2) CHAR(21), FPT(2) CHAR(1)),	R0000130
		3 (UNOTH(2) CHAR(21), DEG(2) CHAR(3), HPCD(2) CHAR(4)),	R0000140
		3 (SUB(2) CHAR(36), DAT(2) CHAR(6)),	R0000150
		3 (ADIP CHAR(30), ADIPC CHAR(1)),	R0000160
		3 DDIPC CHAR(1),	R0000170
		3 (OQ(2) CHAR(30), OQC(2) CHAR(4)),	R0000180
		3 ATO CHAR(1),	R0000190
		2 COURSE,	R0000200
		3 (LFN CHAR(1), CODES(4) CHAR(3)),	R0000210
		3 ((LE,DC(4,24:64)) CHAR(1)),	R0000220
		3 (DC1(4,26:30) CHAR(2)),	R0000230
		3 ((DC46(4),DC49(4)) CHAR(3)),	R0000240
		2 FINALS,	R0000250
		3 ((TC,WS,BE,SUBCAR) CHAR(1)),	R0000260
		2 ANNPROG,	R0000270
		3 AP CHAR(802),	R0000280
		3 ((LEAP,FK(100,2)) FIXED BINARY),	R0000290
		2 INTEL,	R0000300
		3 (INTELB CHAR(2), (VALUES(2,6), DSCALE(2)) FIXED BINARY),	R0000310
		3 ((AH4(2,3),PF16(2,16)) FIXED BINARY),	R0000320
		3 STEN(2,16) FIXED BINARY;	R0000330
		-----*/R0000340	R0000350
3	1	DCL (NORM(2,16,13) FIXED BINARY, NORM2(2,16,2)	R0000360
		FLOAT DECIMAL, (OPSOK(6) CHAR(40), PSOK(5) CHAR(65), GRC CHAR(11)),	R0000370
		STK(6) CHAR(50), MK(3) CHAR(12), OK(17) CHAR(35), RK(5) CHAR(30),	R0000380
		GRK(11) CHAR(30), DAK(4) CHAR(40), DRK(6) CHAR(30)) VARYING	R0000390
		) EXTERNAL;	R0000400
4	1	DCL 1 RECL(500),	R0000410
		2 NAML CHAR(40),	R0000420
		2 DESL CHAR(8),	R0000430
		2 ((DOBL,START) CHAR(6),	R0000440
		2 FIN CHAR(7),	R0000450
		2 TYPE CHAR(1),	R0000460
		2 DHT CHAR(3),	R0000470
		2 DRY CHAR(2),	R0000480
		2 DRB CHAR(21);	R0000490
5	1	DCL (FILN1,FILN2,DESNO2,DT,DES) CHAR(8),YE CHAR(4),TRANS CHAR(2),	R0000500
		(PI,WC,YT,NTT) CHAR(1), (B,DESB) BIT(1), (OPT,KT,YR,NT)	R0000510
		FIXED BINARY, BCON BIT(1) INITIAL('1'B), BMAX BIT(1), (VP,CSC)	R0000520
		CHAR(1), VPB BIT(1), (VPI,I) FIXED BINARY, DESNO3 CHAR(8);	R0000530
6	1	DCL L(10) LABEL INITIAL(L1,L2,L3,L4,L5,L6,L7,L8,L9,L10);	R0000540
7	1	DCL CON ENTRY(CHAR(8)), DESOP BIT(1) INITIAL('0'B);	R0000550
		-----*/R0000560	

STMT LEVEL NEST

```
59      2      2      2      GOTU L2:
60      2      2      2      END: ELSE
61      2      2      1      IF CONT='2' | CONT='3' THEN
62      2      2      1      DO: K=CONT;
63      2      2      2      K=K-1;
64      2      2      2      GET EDIT(UNOTH(K),DEG(K),HPCD(K),SUR(K),DAT(K))
65      2      2      2      (A(21),A(3),A(4),A(36),A(6));
66      2      2      2      GOTO L2;
67      2      2      2      END: ELSE
68      2      2      1      IF CONT='4' THEN
69      2      2      1      DO: GET EDIT(ADIP,ADIPC,DDIPC,QQ(1),QQ(2),QQ(2))
70      2      2      1      (A(21),2(A(1)),2(A(19),A(4)));
71      2      2      2      GOTO L2;
72      2      2      2      END:
73      2      2      1      LE='1';
74      2      2      2      END:
75      2      2      2      LE='1';
76      1      1      2      END:
77      2      2      2      CHECKREC:PROCEDURE;
78      2      2      2      DCL X2 CHAR(2), (K,Q) FIXED BINARY, OKB BIT(1);
79      2      2      2      IF SUBSTR(TTFT(1,1),5,2)<'72' THEN OKB='1'B; ELSE OKB='0'B;
80      2      2      2      X2=SUBSTR(TTFT(1,1),5,2);
81      2      2      2      K=X2;
82      2      2      2      X2=SUBSTR(DOB,5,2);
83      2      2      2      Q=X2;
84      2      2      2      IF K-Q<25 THEN OV25=''; ELSE IF OV25='' THEN OV25='0';
85      2      2      2      IF Q<17 | Q>60 THEN
86      2      2      2      PUT EDIT(DESNQ,'AGE CHECK, RECORDED AS',Q)
87      2      2      2      (COL(1),A,X(1),A,X(1),F(2));
88      2      2      2      IF SEX='M' & SEX='F' THEN
89      2      2      2      PUT EDIT(DESNQ,'ERROR RETURNED....SEX')(SKIP,A(8),X(1),A);
90      2      2      2      IF MART<'1' | MART>'3' THEN
91      2      2      2      PUT EDIT(DESNQ,'ERROR RETURNED....MARITAL STATUS')
92      2      2      2      (SKIP,A(8),X(1),A);
93      2      2      2      IF REL<'1' | (REL>'5' & ~OKB) | (REL>'6' & OKB) THEN
94      2      2      2      PUT EDIT(DESNQ,'ERROR RETURNED....RELIGION')(SKIP,A(8),X(1),A);
95      2      2      2      IF SET<'1' | ((SET>'4' & OKB) | (SET>'6' & ~OKB)) THEN
96      2      2      2      PUT EDIT(DESNQ,'ERROR RETURNED....SETTLEMENT')
97      2      2      2      (SKIP,A(8),X(1),A);
98      2      2      2      IF ~OKB & (REG<'A' | REG>'K') THEN
99      2      2      2      PUT EDIT(DESNQ,'ERROR RETURNED....REGION')(SKIP,A(8),X(1),A);
100     2      2      2      IF POCC<'1' | ((POCC>'5' & ~OKB) | (POCC>'6' & OKB)) THEN
101     2      2      2      PUT EDIT(DESNQ,'ERROR RETURNED....PARENT/GUARDIAN OCCUPATION')
102     2      2      2      (SKIP,A(8),X(1),A);
103     2      2      2      IF SOCC=' ' & (SOCC<'1' | ((SOCC>'5' & ~OKB) | (SOCC>'6' & OKB)))
104     2      2      2      THEN PUT EDIT(DESNQ,'ERROR RETURNED....STUDENT OCCUPATION')
105     2      2      2      (SKIP,A(8),X(1),A);
106     2      2      2      IF OV25=' ' & (OV25<'0' | OV25>'9') THEN
107     2      2      2      PUT EDIT(DESNQ,'ERROR RETURNED....OVER 25 OCCUPATION')
108     2      2      2      (SKIP,A(8),X(1),A);
109     2      2      2      IF SUBSTR(TTFT(1,1),3,4)~=DC1(1,26) | | EC1(1,27) THEN
```

STMT LEVEL NEST

```

110      2      PUT EDIT(DESNO,'ERROR RETURNED.....START DATE CHECK')
111      2      (COL(1),A,X(1),A):
112      2      IF ~OKB & (AUTHNO<'1' | AUTHNO>'5') THEN
113      2      PUT EDIT(DESNO,'ERROR RETURNED.....AUTHORITY/COUNTRY NUMBER')
114      2      (COL(1),A,X(1),A):
115      2      END;
116      2      /*****
117      2      ITRCIN:PROCEDURE;
118      2      DCL MNT(16) FIXED BINARY INITIAL(20,13,26,26,26,20,20,26,
119      2      20,26,20,20,26);
120      2      DCL (I,J) FIXED BINARY, SW BIT(1) INITIAL('0'B);
121      2      GET EDIT(VALUES(YR,*),DSCALE(YR),AH4(YR,*),PF16(YR,*))
122      2      (6(F(2)),F(3),2(F(2)),F(3),16(F(2)));
123      2      DO K=1 TO 6;
124      2      IF VALUES(YR,K)<0 | VALUES(YR,K)>60 THEN
125      2      PUT EDIT(DESCN,'ERRCR RETURNED FOR VALUES SCORE',K)
126      2      (SKIP,COL(1),A,X(1),A,X(1),F(1));
127      2      END;
128      2      IF DSCALE(YR)<0 | DSCALE(YR)>300 THEN
129      2      PUT EDIT(DESNO,'ERROR RETURNED FOR P.O.SCALE SCORE')
130      2      (SKIP,COL(1),A,X(1),A,X(1),F(2));
131      2      DO K=1 TO 3;
132      2      IF AH4(YR,K)<0 | AH4(YR,K)>130 THEN
133      2      PUT EDIT(DESNO,'ERROR RETURNED FOR A.H.4 SCORE',K)
134      2      (SKIP,COL(1),A,X(1),A,X(1),F(2));
135      2      END;
136      2      DO K=1 TO 16;
137      2      IF PF16(YR,K)<0 | PF16(YR,K)>MNT(K) THEN
138      2      DO; PUT EDIT(DESNO,'ERROR RETURNED FOR P.F.16 SCORE',K)
139      2      (SKIP,COL(1),A,X(1),A,X(1),F(2));
140      2      SW='1'B;
141      2      END;
142      2      IF SW THEN GOTO L2;
143      2      DO I=1 TO 16;
144      2      DO J=1 TO 9;
145      2      IF PF16(YR,I)<=NORM(NT,I,1) THEN
146      2      DO; STEN(YR,I)=J;
147      2      GOTO L1;
148      2      END; ELSE
149      2      IF PF16(YR,I)>NORM(NT,I,J) & PF16(YR,I)<=NORM(NT,I,J+1) THEN
150      2      DO; STEN(YR,I)=J+1;
151      2      GOTO L1;
152      2      END;
153      2      L1: END;
154      2      L2: SUBSTR(INTELB,YR,1)='*';
155      2      END;
156      2      /*****
157      2      UPDATE:PROCEDURE;
158      2      DCL INST CHAR(70), X1 CHAR(1), XVAR CHAR(4) VARYING,
159      2      (I,K,POSEND,POSEQ,J) FIXED BINARY;
160      2      GET EDIT(X1)(COL(9),A(1));
161      2      IF X1>LEN THEN PUT EDIT(DESNO,'WARNING...YEAR OF UPDATE > COURSE'R0002180

```

STMT LEVEL NEST

```
158      2      1      , ' LENGTH' )(CCL(1),A,X(1),A,A);
159      2      1      GET EDIT(X1)(COL(10),A(1));
160      2      1      IF X1='C' THEN
DO; PUT EDIT(DESNO,'PROCEEDING TO A FOURTH YEAR')(COL(1),A,
X(1),A);
LEN='4';
END; ELSE IF X1='F' THEN GOTO L2;
L1: GET EDIT(INST)(COL(11),A(70));
DO I=1 BY 10 TO 70;
IF SUBSTR(INST,I,2)='*A' THEN
DO; POSEQ=I+INDEX(SUBSTR(INST,I+1),'=');
POSEND=I+INDEX(SUBSTR(INST,I+1),'*');
IF POSEQ=I THEN GOTO L3;
POSEND=I+INDEX(SUBSTR(INST,I+1),' ');
XVAR=SUBSTR(INST,I+2,POSEQ-I-2);
K=XVAR;
IF FK(K,1)=0 THEN
DO; SUBSTR(AP,FK(K,1))=SUBSTR(AP,FK(K,1)+FK(K,2));
LEAP=LEAP-FK(K,2);
DO J=1 TO 100;
IF FK(J,1)=0 & FK(J,1)>FK(K,1) THEN
FK(J,1)=FK(J,1)-FK(K,2);
END;
FK(K,*)=0;
END;
IF POSEQ=POSEQ+1 THEN GOTO L3;
IF (LEAP+POSEND-POSEQ)>802 THEN
DO; PUT EDIT(DESNO,'ANNUAL PROGRESS VECTOR SIZE EXCEEDED',
'...INFORMATION IGNORED')(COL(1),A,X(1),A,A);
DO J=1 BY 1;
IF SUBSTR(INST,70,1)='C' THEN GET SKIP; ELSE RETURN;
END;
END;
SUBSTR(AP,LEAP,POSEND-POSEQ)=SUBSTR(INST,POSEQ+1,
POSEND-POSEQ);
FK(K,1)=LEAP;
LEAP=LEAP+POSEND-POSEQ;
FK(K,2)=POSEND-POSEQ;
END;
L3: END;
IF SUBSTR(INST,70,1)='C' THEN GOTO L1; ELSE RETURN;
L2: GET EDIT(1TC,WS,BE,SUBCAR,TTFT(1,2))
(COL(20),A(1),COL(30),A(1),COL(40),A(1),COL(50),A(1),
COL(60),A(6));
TTFT(2,1)='LEFT ' ;
END;
/*****
SPNT:PROCEDURE;
DCL (I,N) FIXED BINARY, PB BIT(1) INITIAL('0'B), SW BIT(1);
IF PI='2' THEN
DO; PUT SKIP(3);
DO I=1 TO KT;
IF MOD(I-1,10)=0 THEN PUT SKIP;
R0002190
R0002200
R0002210
R0002220
R0002230
R0002240
R0002250
R0002260
R0002270
R0002280
R0002290
R0002300
R0002310
R0002320
R0002330
R0002340
R0002350
R0002360
R0002370
R0002380
R0002390
R0002400
R0002410
R0002420
R0002430
R0002440
R0002450
R0002460
R0002470
R0002480
R0002490
R0002500
R0002510
R0002520
R0002530
R0002540
R0002550
R0002560
R0002570
R0002580
R0002590
R0002600
R0002610
R0002620
R0002630
R0002640
R0002650
R0002660
R0002670
R0002680
R0002690
R0002700
R0002710
R0002720
```

STMT	LEVEL	NEST
219	2	2
220	2	2
222	2	2
225	2	2
226	2	1
227	2	1
228	2	1
229	2	1
231	2	1
234	3	1
235	3	1
236	3	1
237	2	1
238	2	1
239	2	1
240	2	1
241	2	2
242	2	2
244	2	3
245	2	3
246	2	3
247	2	3
248	2	2
249	2	1
251	2	1
252	2	1
253	2	1
254	2	2
255	2	2
257	2	2
258	2	1
259	2	1
260	2	1
261	1	1
262	2	1
263	2	2
264	3	3
265	3	3
266	3	3
267	3	3
268	3	3
269	2	2
270	2	2
271	3	3
272	3	3

```
PUT EDIT(DESL(I))(X(2),A(8));
IF FIN(I)=' ' THEN IF SUBSTR(FIN(I),7,1)='*' THEN
PUT EDIT('*')(A); ELSE PUT EDIT('*')(A); ELSE PUT EDIT(' ')(A);
END;
RETURN;
END; ELSE
IF PI='3' THEN
DO; ON ENDPAGE(SPRINT)
BEGIN; IF P8 THEN PUT PAGE;
PUT EDIT('NAME',D.F.S.NO.,BIRTH,'START','FINISH')
(SKIP(2),COL(1),A,COL(42),A,3(X(5),A));
PUT SKIP(2);
END;
N=KT;
SW='0'B;
N=N-1;
DO I=1 TO N;
IF NAML(I)>NAML(I+1) THEN
DO; RECL(KT+1)=RECL(I);
RECL(I)=RECL(I+1);
RECL(I+1)=RECL(KT+1);
SW='1'B;
END;
END;
IF SW THEN GOTO L1;
SIGNAL ENDPAGE(SPRINT);
PB='1'B;
DO I=1 TO KT;
PUT EDIT(NAML(I),DESL(I),SUBSTR(DOBL(I),1,2),'/',SUBSTR(
DOBL(I),3,2),'/',SUBSTR(DOBL(I),5,2),SUBSTR(START(I),1,2),
'/',SUBSTR(START(I),3,2),'/',SUBSTR(START(I),5,2))
(SKIP,COL(1),A(40),X(2),A(8),2(X(2),5(A)));
IF FIN(I)=' ' THEN PUT EDIT(SUBSTR(FIN(I),1,2),
'/',SUBSTR(FIN(I),3,2),'/',SUBSTR(FIN(I),5,2))(X(3),5(A));
END;
ON ENDPAGE(SPRINT) SYSTEM;
END;
END;
PRINT:PROCEDURE;
DCL (I,K) FIXED BINARY;
/*****
CDATE:PROCEDURE(X6) RETURNS(CHAR(8));
DCL X6 CHAR(6);
IF X6=' ' THEN
RETURN(SUBSTR(X6,1,2) || '/' || SUBSTR(X6,3,2) || '/' || SUBSTR(
X6,5,2)); ELSE RETURN(' ');
END;
DCL CDATE ENTRY(CHAR(6)) RETURNS(CHAR(8));
/*****
GENPNT:PROCEDURE;
DCL OKB BIT(1), X6 CHAR(6), X1 CHAR(1) DEFINED X6 POS(6);
IF SUBSTR(TTFT(1,1),5,2)<'72' THEN OKB='1'B; ELSE OKB='0'B;
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STMT LEVEL NEST

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275 3 IF SEX='M' THEN PUT EDIT('M',')(COL(10),A); ELSE R0003270
277 3 PUT EDIT('FEMALE',')(COL(10),A); R0003280
278 3 IF DOB=' ' THEN PUT EDIT('BORN: ',CDATE(DOB))(X(1),A,A); R0003290
280 3 IF TITLE='M1' THEN PUT EDIT('TITLE: MR.')(COL(10),A); ELSE R0003300
282 3 IF TITLE='M2' THEN PUT EDIT('TITLE: MRS.')(COL(10),A); ELSE R0003310
284 3 IF TITLE='M3' THEN PUT EDIT('TITLE: MISS.')(COL(10),A); R0003320
286 3 PUT SKIP(2); R0003330
287 3 X6=TF(1,1); R0003340
288 3 PUT EDIT('TEACHERS' TRAINING: FROM',CDATE(X6))(COL(10),A,X(1),A); R0003350
289 3 X5=TF(1,2); R0003360
290 3 IF X6=' ' THEN PUT EDIT('TEACHERS' TRAINING: TO ', CDATE(X6))(COL(10),A,X(1),A); R0003370
292 3 X5=TF(2,1); R0003380
293 3 IF SUBSTR(X6,1,4)='WITH' THEN PUT EDIT('STUDENT WITHDRAW, REASON', CODED AS',X1)(COL(10),A,2(X(1),A)); R0003390
295 3 PUT SKIP(2); R0003400
296 3 IF PNAME=' ' THEN PUT EDIT('PREVIOUS SURNAME',PNAME) R0003410
298 3 (COL(10),A,X(1),A); R0003420
299 3 IF MART='1' & MART<='3' THEN R0003430
301 3 DO; I=MART; R0003440
302 3 PUT EDIT('MARITAL STATUS:',MK(I))(COL(10),A,X(1),A); R0003450
303 3 END; R0003460
305 3 IF DOBC='1' THEN PUT EDIT('DATE OF BIRTH CERTIFICATE CONFIRMED') R0003470
307 3 (COL(10),A); R0003480
308 3 IF FPOS=' ' THEN PUT EDIT('POSITION IN FAMILY: ',SUBSTR(FPOS, R0003490
310 3 1,2),',',SUBSTR(FPOS,3,2))(COL(10),4(A)); R0003500
311 3 IF SET='1' & (SET<='4' & OKB) | (SET<='6' & ~OKB) THEN R0003510
312 3 DO; I=SET; R0003520
313 3 PUT EDIT('SETTLEMENT:')(COL(10),A); R0003530
314 3 IF OKB THEN PUT EDIT(OK(I))(A); ELSE PUT EDIT(STK(I))(A); R0003540
315 3 END; R0003550
316 3 I=INDEX(GRC,REG); R0003560
317 3 IF REG='1' & REG<='11' & ~OKB THEN R0003570
318 3 PUT EDIT('REGION: ',GPK(I))(COL(10),A,A); ELSE R0003580
319 3 IF OKB THEN PUT EDIT('REGION: NOT CODED PRIOR TO 1972') R0003590
320 3 (COL(10),A); R0003600
321 3 IF SOCC='1' & (SOCC<='6' & OKB) | (SOCC<='5' & ~OKB) THEN R0003610
322 3 DO; I=SOCC; R0003620
323 3 PUT EDIT('STUDENT OCCUPATION:')(COL(10),A); R0003630
324 3 IF OKB THEN PUT EDIT(OPSK(I))(A); ELSE PUT EDIT(PSOK(I))(A); R0003640
325 3 END; ELSE R0003650
326 3 IF SOCC=' ' THEN PUT EDIT('STUDENT OCCUPATION: AT SCHOOL')( R0003660
327 3 COL(10),A); R0003670
328 3 IF POCC='1' & (POCC<='6' & OKB) | (POCC<='5' & ~OKB) THEN R0003680
329 3 DO; I=POCC; R0003690
330 3 PUT EDIT('PARENT OCCUPATION:')(COL(10),A); R0003700
331 3 IF OKB THEN PUT EDIT(OPSK(I))(A); ELSE PUT EDIT(PSOK(I))(A); R0003710
332 3 END; R0003720
333 3 IF REL='1' & (REL<='6' & OKB) | (REL<='5' & ~OKB) THEN R0003730
334 3 DO; I=REL; R0003740
335 3 PUT EDIT('RELIGION:')(COL(10),A); R0003750
336 3 IF OKB THEN PUT EDIT(OPK(I))(A); ELSE PUT EDIT(RK(I))(A); R0003760
337 3 END; R0003770
338 3 IF CONF='Y' THEN PUT EDIT('CONFIRMED WHEN ADMITTED')(COL(10),A); R0003780
339 3 R0003790
340 3 R0003800
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STMT LEVEL NEST

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348 3 ELSE PUT EDIT('NCT CONFIRMED WHEN ADMITTED')(COL(10),A); R0003810
349 3 IF OV25=' ' THEN PUT EDIT('OVER 25 QUESTION: STUDENT UNDER 25 ' , R0003820
351 3 'WHEN ADMITTED')(COL(10),A,A); ELSE IF OV25>='0' & OV25<='9' THEN R0003830
352 3 DO; I=OV25; IF I=0 THEN I=1; /* CONVERSION */R0003840
356 3 PUT EDIT('OVER 25 QUESTION: ',OK(I))(COL(10),2(A)); R0003850
357 3 END; R0003860
358 3 IF AUTH=' ' THEN PUT EDIT('AUTHORITY/COUNTRY: ',AUTH,'AUTHOR', R0003870
360 3 'ITY CODE: ',AUTHNO)(COL(10),A,A,COL(10),A,A,A); R0003880
361 3 END; R0003890
362 3 /***** */R0003900
363 3 COUPNT:PROCEDURE; R0003910
365 3 PUT EDIT('LENGTH OF COURSE: ',LEN)(COL(10),A,A); R0003920
366 3 IF CODES(1)=' ' THEN PUT EDIT('MAIN SUBJECT CODE: ',CODES(1)) R0003930
367 3 (X(3),A,A); R0003940
368 3 IF CODES(2)=' ' THEN PUT EDIT('2ND. PROV CODE: ',CODES(2)) R0003950
369 3 (X(3),A,A); R0003960
370 3 PUT EDIT('DETAILS OF COURSE: 24 25 26 27 29 30 32 34 35 ', R0003970
371 3 '36 37 38 41 42 43 44 45 46-48 49-51 59 64')(COL(10),A,A);R0003980
372 3 K=LE; /* CONVERSION */R0003990
373 3 DO I=1 TO K; R0004000
374 3 PUT EDIT(DC(I,24),DC(I,25),DC(I,26),'/',DC(I,27),DC(I,29), R0004010
375 3 ' ',DC(I,30),DC(I,32),DC(I,34),DC(I,35),DC(I,36),DC(I,37), R0004020
376 3 DC(I,38),DC(I,41),DC(I,42),EC(I,43),DC(I,44),DC(I,45),DC46(I), R0004030
377 3 DC49(I),DC(I,59),DC(I,64))(COL(31),A,X(2),A,X(3),3(A),X(1),3(A)R0004040
378 3 ,X(4),A,X(2),7(X(2),A),X(2),3(X(2),A),X(5),A,X(3),A,2(X(4),A));R0004050
379 3 END; R0004060
380 3 /R0004070
381 3 END; R0004070
382 3 /***** */R0004080
383 3 SAQNT:PROCEDURE; R0004090
384 3 PUT EDIT('NO. OF SCHOOLS ATTENDED: ',SCHNO,' CODED: ')(COL(10), R0004100
385 3 3(A)); R0004110
386 3 K=SCHNO; /* CONVERSION */R0004120
387 3 DO I=1 TO K; R0004130
388 3 PUT EDIT(SCH(I))(X(1),A); R0004140
389 3 END; R0004150
390 3 PUT EDIT('NO. OF QUALIFICATIONS RECORDED: ',QUALNO) R0004160
391 3 (SKIP(2),COL(10),A,A); R0004170
392 3 K=QUALNO; /* CONVERSION */R0004180
393 3 PUT EDIT('QUALIFICATIONS: ')(COL(10),A); R0004190
394 3 DO I=1 TO K; R0004200
395 3 PUT EDIT(QUAL(I))(X(4),A(10)); R0004210
396 3 IF MOD(I,6)=0 THEN PUT EDIT(' ')(COL(24),A); R0004220
397 3 END; R0004230
398 3 IF UNCOL(1)=' ' I UNCOL(2)=' ' THEN R0004240
399 3 DO; PUT EDIT('UNIV. OR COLL. ATTENDED FOR DEGREE STUDY','F/P TIME'R0004250
400 3 'FROM','TO')(SKIP(2),COL(10),A,X(4),A,X(8),A,X(10),A); R0004260
401 3 PUT EDIT(UNCOL(1),FPT(1),CDATE(FT(1,1)),CDATE(FT(1,2)), R0004270
402 3 UNCOL(2),FPT(2),CDATE(FT(2,1)),CDATE(FT(2,2)))(2(COL(10), R0004280
403 3 A,COL(58),A,COL(66),A,COL(78),A)); R0004290
404 3 END; R0004300
405 3 IF UNOTH(1)=' ' I UNOTH(2)=' ' THEN R0004310
406 3 DO; PUT EDIT('UNIV. OR OTHER AWARDING BODY','TITLE','H/P,C/D', R0004320
407 3 'SUBJECTS','DATE')(SKIP(2),COL(10),A,COL(43),A,COL(50),A, R0004330
408 3 COL(59),A,COL(103),A); R0004340

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STMT LEVEL NEST

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395      3      1      PUT EDIT(SURSTR(UNTH(1),2),DEG(1),HPCD(1),SUB(1),
                                CDATE(DAT(1)),SURSTR(UNTH(2),2),DEG(2),HPCD(2),
                                SUB(2),CDAT(DAT(2)))(2(CCL(10),A,CCL(45),A,
                                CCL(53),A,CCL(59),A,CCL(99),A));
396      3      1
397      3
399      3
401      3      3      IF ADIPC= ' ' THEN PUT EDIT('DIPLOMA IN ART AND DESIGN',ADIP,
                                ADIPC)(SKIP(2),COL(10),A,X(1),A,X(1),A);
402      3      3      IF DDIPC= ' ' THEN PUT EDIT('NATIONAL DIPLOMA IN DESIGN',DDIPC)
                                (SKIP(2),COL(10),A,X(1),A);
404      3      3      IF DD(1)= ' ' | DD(2)= ' ' THEN
405      3      3      DO; PUT EDIT('OTHER ART QUALIFICATIONS: ')(SKIP(2),COL(10),A);
406      3      3      PUT EDIT(DD(1),DDC(1),DD(2),DDC(2))(2(CCL(36),A,X(1),A));
408      3      END;
                                IF ATO= ' ' THEN PUT EDIT('STUDENT EXCEPTED BY A.T.O. FRGM',
                                ' EXAMINATION REQUIREMENTS')(SKIP(2),COL(10),A,A);
409      2      APPNT:PROCEDURE;
410      3      PUT EDIT('ANNUAL PROGRESS VECTOR: ')(COL(10),A);
411      3      K=35;
412      3      DO I=1 TO 100;
413      3      IF FK(I,1)=0 THEN
414      3      DO; PUT EDIT('A',I,'=',SUBSTR(AP,FK(I,1),FK(I,2)))
                                (COL(K),A,P'999',A,A);
416      3      IF K+FK(I,2)+5>=95 | K=95 THEN K=35; ELSE
418      3      IF K+FK(I,2)+5>=15 THEN K=K+30; ELSE K=K+15;
421      3      END;
422      3      1
423      3
424      3
426      3      1      END;
427      3      1
428      3      END;
429      2      /*****
431      2      IF VPI=3 THEN PUT PAGE;
432      2      PUT EDIT(DESD,NAME)(COL(1),A,X(1),A);
433      2      IF VPI=0 THEN
435      2      DO; PUT EDIT('RECORDED AS HAVING WITHDRAWN ON',CDATE(TTFT(1,2)),
                                'REASON CODED AS',SUBSTR(TTFT(2,1),6,1))(COL(10),A,
                                3(X(1),A));
436      2      RETURN;
437      2      END; ELSE
438      2      IF VPI=1 THEN
440      2      DO; PUT EDIT('RECORDED AS HAVING CHANGED ')(COL(10),A);
442      2      IF CSC='C' THEN PUT EDIT('COURSE')(A); ELSE
443      2      PUT EDIT('SUBJECT')(A);
444      2      CALL COUNPT;
445      2      RETURN;
446      2      END; ELSE
447      2      IF VPI=2 THEN
                                DO; PUT EDIT('RECORD UPDATED, ANNUAL PROGRESS VECTOR OR ',
                                'FINAL RESULT')(COL(10),A,A);
                                R0004350
                                R0004360
                                R0004370
                                R0004380
                                R0004390
                                R0004400
                                R0004410
                                R0004420
                                R0004430
                                R0004440
                                R0004450
                                R0004460
                                R0004470
                                R0004480
                                R0004490
                                R0004500
                                R0004510
                                R0004520
                                R0004530
                                R0004540
                                R0004550
                                R0004560
                                R0004570
                                R0004580
                                R0004590
                                R0004600
                                R0004610
                                R0004620
                                R0004630
                                R0004640
                                R0004650
                                R0004660
                                R0004670
                                R0004680
                                R0004690
                                R0004700
                                R0004710
                                R0004720
                                R0004730
                                R0004740
                                R0004750
                                R0004760
                                R0004770
                                R0004780
                                R0004790
                                R0004800
                                R0004810
                                R0004820
                                R0004830
                                R0004840
                                R0004850
                                R0004860
                                R0004870
                                R0004880
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STMT	LEVEL	NEST
449	2	1
450	2	1
451	2	1
452	2	1
453	2	1
454	2	1
455	2	1
456	2	1
457	2	1
458	2	1
459	2	1
460	2	1
461	2	1
462	2	1
463	2	1
464	1	
465	2	
466	2	
467	2	
468	2	
469	2	
470	2	
471	2	1
472	2	1
473	2	1
474	2	1
475	2	1
476	2	1
477	2	1
478	2	1
479	2	1
480	2	1
481	2	1
482	2	1
483	2	1
484	2	1
485	2	1
486	2	1
487	2	1
488	2	1
489	2	1
490	2	1
491	2	1
492	2	1
493	2	1
494	2	1
495	2	1
496	2	1
497	2	1
498	2	1
499	2	1
500	2	1
501	2	1
502	2	1
503	2	1
504	2	1

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CALL APPNT;  
RETURN;  
END; ELSE  
IF VPI=3 THEN  
DO; PUT SKIP(2);  
CALL GENPNT;  
PUT SKIP(2);  
CALL SAQNT;  
PUT SKIP(2);  
CALL COUPNT;  
PUT SKIP(2);  
CALL APPNT;  
END;  
END;  
/*****  
SPNT1:PROCEDURE;  
DCL (I,N) FIXED BINARY, COD CHAR(3), B BIT(1);  
N=KT;  
L1: B='0'B;  
N=N-1;  
DO I=1 TO N;  
IF DHT(I) || TYPE(I) || NAML(I)>DHT(I+1) || TYPE(I+1) ||  
NAML(I+1) THEN  
DO; RECL(KT+1)=RECL(I);  
RECL(I)=RECL(I+1);  
RECL(I+1)=RECL(KT+1);  
B='1'B;  
END;  
END;  
IF B THEN GOTO L1;  
COD=DHT(1); B='0'B;  
IF COD=' ' THEN  
DO; PUT EDIT('NO MAIN COURSE RECORDED','DATE OF LISTING',DT,  
'TYPE','D.E.S.NO','NAME')(PAGE,COL(1),A,SKIP(3),COL(1),A,X(1),  
A,SKIP(3),COL(1),A,COL(7),A,COL(17),A);  
PUT SKIP;  
B='1'B;  
END;  
DO I=1 TO KT;  
IF ~B THEN  
DO; PUT EDIT('COURSE CODE',COD,'DATE OF LISTING',DT,'TYPE',  
'D.E.S.NO','NAME')(PAGE,COL(1),A,X(1),A,SKIP(3),COL(1),A,  
X(1),A,SKIP(3),COL(1),A,COL(7),A,COL(17),A);  
PUT SKIP;  
B='1'B;  
END;  
IF DHT(I)=COD THEN  
DO; COD=DHT(I);  
B='0'B;  
GOTO L2;  
END;  
IF TYPE(I)='P' THEN PUT EDIT('PGCE')(SKIP,COL(1),A); ELSE  
PUT EDIT(TYPE(I))(SKIP,COL(4),A);  
PUT EDIT(DES(I),NAML(I))(COL(7),A,COL(17),A);
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STMT LEVEL NEST

505	2	1	END;	R0005430
506	2		END;	PG005440
507	1		DESPNT:PROCEDURE;	/R0005450
508	2		DCL X2 CHAR(2), (I,N) FIXED BINARY, SW RIT(1);	R0005460
509	2		ON ENDPAGE(SPRINT)	R0005470
510	2		BEGIN; PUT EDIT('.....BEDF COLLEGE DURHAM',YE,'.....','TYPE',	R0005480
			'D.E.S.NO','NAME','DATE OF BIRTH','COURSE____DATES',	R0005490
			'DEGREES HELD')(PAGE,COL(38),A,X(2),A,A,SKIP(2),COL(1),A,	R0005500
			COL(7),A,COL(17),A,COL(56),A,CCL(71),A,COL(88),A);	R0005510
			PUT SKIP(2);	R0005520
512	3		END;	R0005530
513	3		IF KT=0 THEN GOTO L21;	R0005540
514	2		N=KT;	R0005550
515	2		L20: SW='0'B;	R0005560
517	2		N=N-1;	R0005570
518	2		DO I=1 TO N;	R0005580
519	2		IF TYPE(I) NAML(I)>TYPE(I+1) NAML(I+1) THEN	R0005590
520	2	1	DO; RECL(KT+1)=RECL(I);	R0005600
521	2	1	RECL(I)=RECL(I+1);	R0005610
523	2	2	RECL(I+1)=RECL(KT+1);	R0005620
524	2	2	SW='1'B;	R0005630
525	2	2	END;	R0005640
526	2	2	END;	R0005650
527	2	1	IF SW THEN GOTO L20;	R0005660
528	2		N=0;	R0005670
530	2		DO I=1 TO KT;	R0005680
531	2	1	IF TYPE(I)='P' THEN	R0005690
532	2	1	DO; N=N+1;	R0005700
533	2	1	IF SUBSTR(DHB(I),1,1)='F' THEN SUBSTR(DHB(I),1,1)='';	R0005710
535	2	2	END; ELSE GOTO L2;	R0005720
537	2	2	END;	R0005730
539	2	1	SW='0'B;	R0005740
540	2		N=N-1;	R0005750
541	2		DO I=1 TO N;	R0005760
542	2		IF SUBSTR(DHB(I),1,1) NAML(I) > SUBSTR(DHB(I+1),1,1)	R0005770
543	2	1	NAML(I+1) THEN	R0005780
			DO; RECL(KT+1)=RECL(I);	R0005790
544	2	1	RECL(I)=RECL(I+1);	R0005800
546	2	2	RECL(I+1)=RECL(KT+1);	R0005810
547	2	2	SW='1'B;	R0005820
548	2	2	END;	R0005830
549	2	2	END;	R0005840
550	2	1	IF SW THEN GOTO L2;	R0005850
551	2		X2=TYPE(1) SUBSTR(DHB(1),1,1);	R0005860
553	2		IF X2='P' THEN	R0005870
554	2		DO; SIGNAL ENDPAGE(SPRINT);	R0005880
555	2		PUT EDIT('PGCE STUDENT(S): FOREIGN DEGREES OR EQUIVALENT')	R0005890
557	2	1	(SKIP(2),COL(1),A);	R0005900
			PUT SKIP(2);	R0005910
558	2	1	END; ELSE SIGNAL ENDPAGE(SPRINT);	R0005920
559	2	1	DO I=1 TO KT;	R0005930
561	2		IF TYPE(I) SUBSTR(DHB(I),1,1)~X2 THEN	R0005940
562	2	1	DO; SIGNAL ENDPAGE(SPRINT);	R0005950
563	2	1		R0005960

STMT	LEVEL	NEST
565	2	2
566	2	2
567	2	1
569	2	1
570	2	1
571	2	1
572	2	1
573	2	1
574	2	1
575	2	1
576	2	1
577	1	1
578	1	1
580	2	1
581	1	1
583	1	1
584	1	1
585	1	1
586	1	1
588	1	1
589	1	1
590	1	1
596	1	1
598	1	1
599	1	1
600	1	1
602	1	1
603	1	1
605	1	1
606	1	1
607	1	1
609	1	1
612	1	1
617	1	1
622	1	1
623	1	1
624	1	1
626	1	1
628	1	1
630	1	1
632	1	1
634	1	1
635	1	1

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      X2=TYPE(I) || SURSTR(DHB(I),1,1);
END;
IF TYPE(I)='P' THEN PUT EDIT('PGCE')(SKIP,COL(1),A); ELSE
  PUT EDIT(TYPE(I))(SKIP,COL(4),A);
  PUT EDIT(DES(I),NAML(I),SUBSTR(COBL(I),1,2),'/',SUBSTR(
    NOBL(I),3,2),'/',SUBSTR(DOBL(I),5,2),START(I),'TO',FIN(I))
    (COL(7),A,COL(17),A,COL(61),5(A),COL(71),A(5),X(1),A,X(1),A(5)
    );
  IF DHB(I)=' ' THEN
    PUT EDIT(DHT(I),'19' || DHY(I),SUBSTR(DHB(I),2))
      (COL(88),A,2(X(2),A));
END;
L21: PUT EDIT('NO. OF STUDENTS',KT)(SKIP(2),COL(1),A,X(2),F(3));
  ON ENDPAGE(SPRINT) SYSTEM;
END;
/*****
ON CONVERSION
  BEGIN; PUT EDIT('*****DATA CONVERSION ERROR*****',
    'CURRENT D.E.S.NO.',DESCNC)(SKIP(2),A,X(1),A,X(1),A);
  END;
  ON ENDFILE(SCARDS) GOTC LOG;
L39: GET EDIT(FILN1,FILN2,YE)(COL(1),A(8),X(1),A(8),X(1),A(4));
  GET LIST(OPT);
  IF OPT<1 || OPT>10 THEN
    DO; PUT EDIT('OPTION INVALID....PROGRAM TERMINATED')
      (SKIP,COL(1),A);
      GOTC LOG;
    END;
  TRANS='CO'; R='C'B; PI='O'; YT='O'; NTT='O'; VP='O';
  DES=''; BMAX='O'B;
  GET DATA;
  IF DES=' ' THEN
    DO; DESB='1'B;
      IF ~DESOB THEN
        DO; OPEN FILE(DIC) OUTPUT TITLE(DES);
          DESOP='1'B;
        END;
      END; ELSE DESB='O'B;
      IF VP='1' THEN VPB='1'B; ELSE VPB='O'B;
      IF NTT='1' THEN NTT=1; ELSE IF NTT='2' THEN NTT=2; ELSE NTT=1;
      IF YT='F' THEN YR=1; ELSE IF YT='L' THEN YR=2; ELSE YR=1;
      PUT EDIT('BCRS...BEDE COLLEGE RECORD SYSTEM','PROGRAMME R',
        'OPTION REQUESTED',OPT,'YEAR REQUESTED',YE)(PAGE,COL(1),A,
        SKIP(2),COL(1),A,COL(1),A,COL(32),F(2),COL(1),A,COL(30),A);
      PUT SKIP(2);
      IF DES=' ' THEN PUT EDIT('DES O/P REQUIRED')(COL(1),A);
      IF PI='O' THEN PUT EDIT('PRINT INDICATOR',PI)
        (COL(1),A,COL(33),A);
      IF YT='O' THEN PUT EDIT('YEAR OF TEST',YT)(COL(1),A,COL(33),A);
      IF NTT='C' THEN PUT EDIT('NORM TABLE REQUIRED',NTT)
        (COL(1),A,COL(33),A(1));
      IF VP='O' THEN PUT EDIT('VERIFICATION PRINT REQUIRED')(COL(1),A);
      PUT SKIP(4);
      IF BCEN & (NPT=2 || (OPT=6 & PI='1') || (OPT=9 & VPB)) THEN
        R0005970
        R0005980
        R0005990
        R0006000
        R0006010
        R0006020
        R0006030
        R0006040
        R0006050
        R0006060
        R0006070
        R0006080
        R0006090
        R0006100
        R0006110
        R0006120
        R0006130
        R0006140
        R0006150
        R0006160
        R0006170
        R0006180
        R0006190
        R0006200
        R0006210
        R0006220
        R0006230
        R0006240
        R0006250
        R0006260
        R0006270
        R0006280
        R0006290
        R0006300
        R0006310
        R0006320
        R0006330
        R0006340
        R0006350
        R0006360
        R0006370
        R0006380
        R0006390
        R0006400
        R0006410
        R0006420
        R0006430
        R0006440
        R0006450
        R0006460
        R0006470
        R0006480
        R0006490
        R0006500
```

STMT LEVEL NEST

```
636      1      1      00; CALL CON(FILN2);          RC006510
638      1      1      RCN='C'R;                  RC006520
639      1      1      END;                        RC006530
640      1      1      GOTO L(OPT);                 RC006540
                                                */RC006550
641      1      1      L1:L7:OPEN FILE(STUDENT) OUTPUT TITLE(FILN1);  RC006560
642      1      1      ALLOCATE RECORD;             RC006570
643      1      1      L11: GENERAL=''; EDUCATION=''; COURSE=''; AP=''; INTEL=0;  RC006580
648      1      1      INFLB=''; LEAP=1; FK=0;       RC006590
651      1      1      GET EDIT(DESN0)(COL(1),A(8)); RC006600
652      1      1      IF DESN0='*****' THEN      RC006610
653      1      1      DO; CLOSE FILE(STUDENT);     RC006620
655      1      1      FREF RECORD;                 RC006630
656      1      1      GOTO L39;                     RC006640
657      1      1      END;                          RC006650
658      1      1      CALL RECIN;                   RC006660
659      1      1      CALL CHECKREC;                 RC006670
660      1      1      IF OPT=7 & DESB THEN PUT FILE(DIC) EDIT(DESN0 || '15')(COL(1),A); RC006680
662      1      1      WRITE FILE(STUDENT) FROM(RECORD); RC006690
663      1      1      GOTO L11;                      RC006700
                                                */RC006710
664      1      1      L2:L3:L4:L8:L9:OPEN FILE(STUDENT) UPDATE TITLE(FILN1);  RC006720
665      1      1      ON ENDFILE(STUDENT)           RC006730
666      1      1      BEGIN; CLOSE FILE(STUDENT);   RC006740
668      2      2      OPEN FILE(STUDENT) UPDATE TITLE(FILN1);  RC006750
669      2      2      GOTO L41;                     RC006760
670      2      2      END;                          RC006770
671      1      1      L42: GET EDIT(DESN02)(COL(1),A(8));  RC006780
672      1      1      IF DESN02='*****' THEN      RC006790
673      1      1      DO; CLOSE FILE(STUDENT);     RC006800
675      1      1      GOTO L39;                     RC006810
676      1      1      END;                          RC006820
677      1      1      L41: REAN FILE(STUDENT) SET(PTR);  RC006830
678      1      1      IF DESN0=DESN02 THEN          RC006840
679      1      1      DO; IF B THEN B='0'B;         RC006850
682      1      1      IF OPT=2 THEN CALL ITRECIN; ELSE  RC006860
684      1      1      IF OPT=3 THEN                RC006870
685      1      1      DO; CALL UPDATE;              RC006880
687      1      1      IF VPB THEN                  RC006890
688      1      1      DO; VPI=2;                   RC006900
690      1      1      CALL PRINT;                   RC006910
691      1      1      END;                          RC006920
692      1      1      IF DESB & SUBSTR(TTFT(2,1),1,4)='LEFT' THEN  RC006930
693      1      1      PUT FILE(DIC) EDIT(DESN0 || '99')(COL(1),A);  RC006940
694      1      1      END; ELSE                     RC006950
695      1      1      IF OPT=4 THEN                 RC006960
696      1      1      DO; GET EDIT(TTFT(1,2),WC)(COL(10),A(6),X(1),A(1));  RC006970
698      1      1      TTFT(2,1)='WITH ' || WC;      RC006980
699      1      1      IF VPB THEN                   RC006990
700      1      1      DO; VPI=0;                   RC007000
702      1      1      CALL PRINT;                   RC007010
703      1      1      END;                          RC007020
704      1      1      IF DESB THEN PUT FILE(DIC) EDIT(DESN0 || '12')(COL(1),A);  RC007030
706      1      1      END; ELSE                      RC007040
```

STMT LEVEL NEST

```
707 1 1 1 R0007050
708 1 1 1 /* CONVERSION */R000706C
710 1 2 2 R000707C
712 1 2 2 R000708C
713 1 2 2 /* CONVERSION */R000709C
GET EDIT(CSC,DC(1,24),DC(1,25),DC(1,26),DC(1,27),
DC(1,29),DC(1,30),CC(1,32),CC(1,34),CC(1,35),DC(1,36),
DC(1,37),DC(1,38),DC(1,41),DC(1,42),DC(1,43),DC(1,44),
DC(1,45),DC46(1),DC49(1),DC(1,59),DC(1,64))(COL(10),A(1),
COL(52),2(A(1)),4(A(2)),11(A(1)),2(A(3)),2(A(1))));
CODES(1)=DC46(1);
CODES(2)=DC49(1);
IF VPB THEN
DO: VPI=1;
CALL PRINT;
END;
IF DESB THEN
PUT FILE(DIC) EDIT(DESNO || '11')(COL(1),A);
END; ELSE
IF OPT=9 THEN
DO: GET DATA;
IF VPB THEN
DO: VPI=3;
CALL PRINT;
END;
END;
REWRITE FILE(STUDENT) FROM(RECORD);
GOTO L42;
END; ELSE
DO: IF -B THEN
DO: DESNO3=DESNO;
B='1'B;
END; ELSE
DO: IF DESNO=DESNO3 THEN
DO: PUT EDIT(DESNO2,'CANNCT BE FOUND....DATA IGNORED')
(COL(1),A,X(1),A);
B='0'B;
GOTO L42;
END;
END;
GOTO L41;
END;
/*-----*/
L5:L6:OPEN FILE(STUDENT) INPUT TITLE(FILN1);
ON ENDFILE(STUDENT)
BEGIN; DT=DATE;
DT=SUBSTR(DT,4,2) || '/' || SUBSTR(DT,1,2) || '/' ||
SUBSTR(DT,7,2);
IF OPT=5 THEN CALL DESPNT; ELSE
IF OPT=6 THEN
DO: IF PI='2' THEN
DO: PUT EDIT(YE,'FILE.....',KT,'STUDENTS INCLUDED',
'.....NUMBERS FOLLOWED BY '*' SHOW THAT THE ',
'STUDENT HAS WITHDRAWN FROM THE COLLEGE', 'NUMBERS',
' FOLLOWED BY '+' SHOW THAT THE STUDENT HAS',
R000706C
R000707C
R000708C
R000709C
R000710C
R000711C
R000712C
R000713C
R000714C
R000715C
R000716C
R000717C
R000718C
R000719C
R000720C
R000721C
R000722C
R000723C
R000724C
R000725C
R000726C
R000727C
R000728C
R000729C
R000730C
R000731C
R000732C
R000733C
R000734C
R000735C
R000736C
R000737C
R000738C
R000739C
R000740C
R000741C
R000742C
R000743C
R000744C
R000745C
R000746C
R000747C
R000748C
R000749C
R000750C
R000751C
R000752C
R000753C
R000754C
R000755C
R000756C
R000757C
R000758C
R000759C
R000760C
R000761C
R000762C
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STMT LEVEL NEST

```
764      2      2      2      ' COMPLETE HIS COURSE AND LEFT'
767      2      2      2      (PAGE,COL(1),A,X(1),A,F(3),X(1),3(A),
768      2      1      1      SKIP,COL(4),3(A));
769      2      1      1      IF KT=0 THEN CALL SPNT; ELSE GOTO L38;

771      2      2      2      END; ELSE
774      2      2      2      IF PI=3 THEN
775      2      1      1      DO; PUT EDIT(VE,'FILE.....',KT,'STUDENTS INCLUDED')
776      2      1      1      (PAGE,COL(1),A(4),X(1),A,F(3),X(1),A);
777      2      1      1      IF KT=0 THEN CALL SPNT; ELSE GOTO L38;
778      2      2      2      END; ELSE
780      2      2      2      IF PI=4 THEN
781      2      1      1      DO; PUT EDIT(VE,'FILE.....',KT,'STUDENTS INCLUDED')
782      2      1      1      (PAGE,COL(1),A(4),X(1),A,F(3),X(1),A);
783      2      1      1      IF KT=0 THEN CALL SPNT1;
784      2      1      1      END;
786      2      1      1      L38:
788      2      1      1      END;
789      2      1      1      PUT EDIT('DATE OF LISTING',DT)(SKIP(2),COL(1),A,X(2),A);
790      2      1      1      IF BMAX THEN
791      2      1      1      DO; BMAX='0'B;
792      2      1      1      RECL=''; KT=0;
793      1      1      1      GOTO L78;
794      1      1      1      END;
795      1      1      1      CLOSE FILE(STUDENT);
796      1      1      1      GOTO L39;
797      1      1      1      END;
798      1      1      1      IF OPT=6 & PI=1 THEN VPI=3;
799      1      1      1      IF OPT=5 | OPT=6 THEN
800      1      1      1      DO; RECL=''; KT=0;
801      1      1      1      END;
802      1      1      1      L12: READ FILE(STUDENT) SET(PTR);
803      1      1      1      IF OPT=5 | OPT=10 THEN
804      1      1      1      DO; IF SUBSTR(DESNO,1,2)=SUBSTR(TTFT(1,1),5,2) THEN
805      1      1      1      DO; PUT EDIT(DESNO,'ADMITTED IN YEAR','19' ||
806      1      1      1      SUBSTR(DESNO,1,2))(SKIP,COL(1),A,X(1),A,X(2),A);
807      1      1      1      GOTO L12;
808      1      1      1      END;
809      1      1      1      L78: IF OPT=5 THEN
810      1      1      1      DO; IF KT=499 THEN
811      1      1      1      DO; PUT EDIT('*****WARNING***** MAXIMUM SIZE REACHED',
812      1      1      1      '...FILE DIVIDED')(COL(1),A,A);
813      1      1      1      BMAX='1'B;
814      1      1      1      SIGNAL ENDFILE(STUDENT);
815      1      1      1      END;
816      1      1      1      KT=KT+1;
817      1      1      1      DESL(KT)=DESNO;
818      1      1      1      NAML(KT)=NAME;
819      1      1      1      DOBL(KT)=DOB;
820      1      1      1      START(KT)=DC1(1,26) || '/' || DC1(1,27);
821      1      1      1      FIN(KT)=DC1(1,29) || '/' || DC1(1,30);
822      1      1      1      IF DC(1,59)='1' THEN
823      1      1      1      DO; TYPE(KT)='P';
824      1      1      1      IF UNOTH(1)=0 THEN
825      1      1      1      IF UNOTH(1)=0 THEN
```

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```
827      1      2      DO: DHT(KT)=DEG(1); R0008130
829      1      3      DHY(KT)=SUBSTR(DATT(1),5,2); R0008140
830      1      3      DHB(KT)=UNOTH(1); R0008150
831      1      3      END: ELSE R0008160
832      1      2      IF UNCOL(1)=' ' THEN R0008170
833      1      2      DO: DHY(KT)=SUBSTR(FT(1,2),5,2); R0008180
835      1      3      DHE(KT)=' ' || UNCOL(1); R0008190
836      1      3      END: R0008200
837      1      2      END: ELSE R0008210
838      1      1      IF LEN='1' | LEN='2' | LEN='3' THEN TYPE(KT)=LEN; ELSE R0008220
840      1      1      DO: PUT EDIT(DESND,'TYPE WARNING.....SET TO 3') R0008230
      (SKIP,COL(1),A,X(1),A); R0008240
      TYPE(KT)='3'; R0008250
842      1      2      END; R0008260
843      1      2      END: ELSE R0008270
844      1      1      IF OPT=6 THEN R0008280
845      1      1      DO: IF PI='1' THEN CALL PRINT; ELSE R0008290
846      1      1      IF PI='2' | PI='3' | (PI='4' & TTFT(1,2)=' ' ) THEN R0008300
850      1      1      DO: IF KT=499 THEN R0008310
852      1      2      DO: PUT EDIT('*****WARNING***** MAXIMUM SIZE REAC', R0008320
      'HED..FILE DIVIDED')(COL(1),A,A); R0008330
      BMAX='1'B; R0008340
      SIGNAL ENDFILE(STUDENT); R0008350
854      1      3      END: R0008360
855      1      3      KT=KT+1; R0008370
856      1      3      DESL(KT)=DESND; R0008380
857      1      2      IF TTFT(1,2)=' ' THEN R0008390
858      1      2      FIN(KT)=TTFT(1,2); R0008400
859      1      2      IF TTFT(2,1)=' ' THEN R0008410
860      1      2      IF SUBSTR(TTFT(2,1),1,4)='WITH' THEN R0008420
861      1      2      SUBSTR(FIN(KT),7,1)='*'; ELSE SUBSTR(FIN(KT),7,1)='+'; R0008430
862      1      2      IF PI='3' THEN R0008440
863      1      2      DO: NAML(KT)=NAME; R0008450
864      1      2      DOBL(KT)=DOB; R0008460
865      1      2      DO: NAML(KT)=NAME; R0008470
866      1      3      DOBL(KT)=DOB; R0008480
867      1      3      START(KT)=TTFT(1,1); R0008490
868      1      3      END: ELSE R0008500
869      1      3      IF PI='4' THEN R0008510
870      1      3      DO: NAML(KT)=NAME; R0008520
871      1      2      DHT(KT)=CODES(1); R0008530
872      1      2      I=LE; R0008540
873      1      2      IF DC(1,59)='1' THEN TYPE(KT)='P'; ELSE R0008550
874      1      2      IF LEN>'1' & LEN<='4' THEN TYPE(KT)=LEN; ELSE R0008560
875      1      3      DO: PUT EDIT(DESND,'TYPE WARNING.....SET TO 3') R0008570
876      1      3      (COL(1),A,X(1),A); R0008580
877      1      3      TYPE(KT)='3'; R0008590
878      1      3      END; R0008600
880      1      3      END: R0008610
881      1      4      END; R0008620
882      1      4      END: R0008630
883      1      4      END: R0008640
884      1      3      END: ELSE R0008650
885      1      3      IF OPT=10 & DESB THEN PUT FILE(DIC) EDIT(DESND || '01')(COL(1),A); R0008660
886      1      2      GOTO L12; R0008670
887      1      2      PUT PAGE; R0008680
888      1      2      END: R0008690
889      1      1      END: R0008700
890      1      1      END: R0008710
891      1      1      END: R0008720
892      1      1      END: R0008730
```

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893 1

END;

R0000010

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R0008670
R0008680

ATTRIBUTE AND CROSS-REFERENCE TABLE

DCL NO. IDENTIFIER

ATTRIBUTES AND REFERENCES

2	ADIP	IN EDUCATION IN RECORD,BASED(PTR),UNALIGNED,STRING(30),CHARACTER 70,398
2	ADIPC	IN EDUCATION IN RECORD,BASED(PTR),UNALIGNED,STRING(1),CHARACTER 70,397,398
2	***** AH4	(2,3)IN INTEL IN RECORD,BASED(PTR),ALIGNED,BINARY,FIXED(15,C) 117,125,125
2	ANNPROG	IN RECORD,BASED(PTR),STRUCTURE
2	AP	IN ANNPROG IN RECORD,BASED(PTR),UNALIGNED,STRING(802),CHARACTER 180,180,199,415,646
409	APPNT	ENTRY,DECIMAL,FLCAT(SINGLE) 449,461
2	ATO	IN EDUCATION IN RECORD,BASED(PTR),UNALIGNED,STRING(1),CHARACTER 17,406
2	AUTH	IN GENERAL IN RECORD,BASED(PTR),UNALIGNED,STRING(19),CHARACTER 13,358,359
2	AUTHND	IN GENERAL IN RECORD,BASED(PTR),UNALIGNED,STRING(1),CHARACTER 12,111,111,359
465	B	AUTOMATIC,UNALIGNED,STRING(1),BIT 467,475,478,481,486,489,493,498
5	B	AUTOMATIC,UNALIGNED,STRING(1),BIT 591,680,681,737,740,746
5	BCON	AUTOMATIC,UNALIGNED,INITIAL,STRING(1),BIT 635,638
2	BE	IN FINALS IN RECORD,BASED(PTR),UNALIGNED,STRING(1),CHARACTER 208,425
5	BMAX	AUTOMATIC,UNALIGNED,STRING(1),BIT 597,783,785,814,854
263	CDATE	ENTRY,STRING(8),CHARACTER 279,288,291,390,390,390,390,395,395,434
76	CHECKREC	ENTRY,DECIMAL,FLCAT(SINGLE) 659
465	COD	AUTOMATIC,UNALIGNED,STRING(3),CHARACTER 480,482,491,495,497
2	CODES	(4)IN COURSE IN RECORD,BASED(PTR),UNALIGNED,STRING(3),CHARACTER

DCL NO.	IDENTIFIER	ATTRIBUTES AND REFERENCES
4	DESL	IN RECL(500),AUTOMATIC,UNALIGNED,STRING(8),CHARACTER 219,254,504,570,818,858
2	DESN0	IN RECORD,BASED(PTR),UNALIGNED,STRING(8),CHARACTER 24,27,39,44,47,90,92,94,96,98,100,102,104,106,108,110,112,120,123 126,131,157,161,192,431,579,651,652,661,678,693,705,722,739,743,803 805,805,818,841,858,881,888
5	DESN02	AUTOMATIC,UNALIGNED,STRING(8),CHARACTER 671,672,678,745
5	DESN03	AUTOMATIC,UNALIGNED,STRING(8),CHARACTER 739,743
7	DESOP	AUTOMATIC,UNALIGNED,INITIAL,STRING(1),BIT 602,605,890
507	DESPNT	ENTRY,DECIMAL,FLOAT(SINGLE) 758
4	DHB	IN RECL(500),AUTOMATIC,UNALIGNED,STRING(21),CHARACTER 535,536,543,543,553,562,565,571,572,830,835
4	DHT	IN RECL(500),AUTOMATIC,UNALIGNED,STRING(3),CHARACTER 470,470,480,495,497,572,828,874
4	DHY	IN RECL(500),AUTOMATIC,UNALIGNED,STRING(2),CHARACTER 572,829,834
9	DIC	FILE,EXTERNAL 604,661,693,705,722,888,891
2	DOB	IN GENERAL IN RECORD,BASED(PTR),UNALIGNED,STRING(6),CHARACTER 12,83,278,279,820,868
2	DOBC	IN GENERAL IN RECORD,BASED(PTR),UNALIGNED,STRING(1),CHARACTER 12,303
4	DOBL	IN RECL(500),AUTOMATIC,UNALIGNED,STRING(6),CHARACTER 254,254,254,570,570,570,820,868
2	***** DSCALE	(2)IN INTEL IN RECORD,BASED(PTR),ALIGNED,BINARY,FIXED(15,0) 117,122,122
5	DT	AUTOMATIC,UNALIGNED,STRING(8),CHARACTER 484,491,755,756,756,756,756,782
2	EDUCATION	IN RECORD,BASED(PTR),STRUCTURE 644
5	FILN1	AUTOMATIC,UNALIGNED,STRING(8),CHARACTER 593,641,664,664,752
5	FILN2	AUTOMATIC,UNALIGNED,STRING(8),CHARACTER

DCL NO.	IDENTIFIER	ATTRIBUTES AND REFERENCES
4	FIN	583,637 IN RECL(500),AUTOMATIC,UNALIGNED,STRING(7), CHARACTER 220,221,255,256,256,256,570,822,860,863,864
2	FINALS	IN RECORD,BASED(PTR),STRUCTURE
2	***** FK	(100,2)IN ANNPRG IN RECORD,BASED(PTR),ALIGNED,BINARY, FIXED (15,0) 178,180,180,180,181,182,183,184,184,184,186,200,202,413,415,415 416,418,650
2	FPOS	IN GENERAL IN RECORD,BASED(PTR),UNALIGNED,STRING(4), CHARACTER 12,107,107,305,306,306
2	FPT	(2)IN EDUCATION IN RECORD,BASED(PTR),UNALIGNED,STRING(1), CHARACTER 57,390,390
2	FT	(2,2)IN EDUCATION IN RECORD,BASED(PTR),UNALIGNED,STRING(6), CHARACTER 57,57,390,390,390,390,834
2	GENERAL	IN RECORD,BASED(PTR),STRUCTURE 643
270	GENPNT	ENTRY,DECIMAL,FLOAT(SINGLE) 455
3	GRC	STATIC,EXTERNAL,UNALIGNED,STRING(11),CHAPACTER,VARYING 315
3	GRK	(11)STATIC,EXTERNAL,UNALIGNED,STRING(30),CHARACTER,VARYING 317
2	HPCD	(2)IN EDUCATION IN RECORD,BASED(PTR),UNALIGNED,STRING(4), CHARACTER 65,395,395
508	***** I	AUTOMATIC,ALIGNED,BINARY, FIXED(15,0) 519,520,520,520,522,523,524,531,532,535,536,542,543,543,543 543,545,546,547,561,562,562,565,565,567,569,570,570,570,570 570,570,571,572,572,572
465	***** I	AUTOMATIC,ALIGNED,BINARY, FIXED(15,0) 469,470,470,470,470,470,472,473,473,474,488,495,497,501,503,504 504
262	***** I	AUTOMATIC,ALIGNED,BINARY, FIXED(15,0) 300,301,309,312,313,315,317,322,325,326,332,335,336,340,343,344,353 354,355,356,369,370,370,370,370,370,370,370,370,370,370,370 370,370,370,370,370,370,370,376,377,382,383,384,412,413,415,415 415,416,418
212	***** I	AUTOMATIC,ALIGNED,BINARY, FIXED(15,0) 214,217,219,220,221,240,241,241,243,244,244,245,253,254,254,254,254 254,254,254,255,256,256,256

DCL NO.	IDENTIFIER	ATTRIBUTES AND REFERENCES
890	L09	64C STATEMENT LABEL CCNSTANT 582,588
38	L1	STATEMENT LABEL CCNSTANT 40
150	L1	STATEMENT LABEL CCNSTANT 142,147
166	L1	STATEMENT LABEL CCNSTANT 206
238	L1	STATEMENT LABEL CCNSTANT 250
467	L1	STATEMENT LABEL CCNSTANT 479
641	L1	STATEMENT LABEL CCNSTANT
752	L10	STATEMENT LABEL CCNSTANT
643	L11	STATEMENT LABEL CCNSTANT 663
800	L12	STATEMENT LABEL CCNSTANT 806,889
14	L2	STATEMENT LABEL CCNSTANT 59,66,71
151	L2	STATEMENT LABEL CCNSTANT 136
208	L2	STATEMENT LABEL CCNSTANT 165
489	L2	STATEMENT LABEL CCNSTANT 499
540	L2	STATEMENT LABEL CCNSTANT 538,552
664	L2	STATEMENT LABEL CCNSTANT
517	L20	STATEMENT LABEL CCNSTANT 529
574	L21	STATEMENT LABEL CCNSTANT 515
26	L222	STATEMENT LABEL CCNSTANT

DCL NO.	IDENTIFIER	ATTRIBUTES AND REFERENCES
46	L223	37 STATEMENT LABEL CCNSTANT
204	L3	48 STATEMENT LABEL CCNSTANT 173,189
664	L3	STATEMENT LABEL CCNSTANT
782	L38	STATEMENT LABEL CCNSTANT 766,773
583	L39	STATEMENT LABEL CCNSTANT 656,675,791
664	L4	STATEMENT LABEL CCNSTANT
677	L41	STATEMENT LABEL CCNSTANT 669,750
671	L42	STATEMENT LABEL CCNSTANT 734,747
752	L5	STATEMENT LABEL CCNSTANT
752	L6	STATEMENT LABEL CCNSTANT
641	L7	STATEMENT LABEL CCNSTANT
809	L78	STATEMENT LABEL CCNSTANT 788
664	L8	STATEMENT LABEL CCNSTANT
664	L9	STATEMENT LABEL CCNSTANT
2	LE	IN COURSE IN RECORD,BASED(PTR),UNALIGNED,STRING(1),CHARACTER 74,368,709,710,711,712,875
2	***** LEAP	IN ANNPROG IN RECORD,BASED(PTR),ALIGNED,BINARY,FIXED(15,0) 181,181,190,199,200,201,201,649
2	LEN	IN COURSE IN RECORD,BASED(PTR),UNALIGNED,STRING(1),CHARACTER 13,156,162,362,838,838,838,839,878,878,879
2	MART	IN GENERAL IN RECORD,BASED(PTR),UNALIGNED,STRING(1),CHARACTER 12,93,93,298,298,300
	MIN	GENERIC,BUILT-IN FUNCTION 19,37
3	MK	(3)STATIC,EXTERNAL,UNALIGNED,STRING(12),CHARACTER,VARYING 301

DCL NO.	IDENTIFIER	ATTRIBUTES AND REFERENCES
115	***** MNT	(16)AUTOMATIC,ALIGNED,INITIAL,BINARY,FIXED(15,0) 129
	MOD	GENERIC,BUILT-IN FUNCTION 34,217,384
508	***** N	AUTOMATIC,ALIGNED,BINARY,FIXED(15,0) 516,518,518,519,530,534,534,541,541,542
465	***** N	AUTOMATIC,ALIGNED,BINARY,FIXED(15,0) 466,468,468,469
212	***** N	AUTOMATIC,ALIGNED,BINARY,FIXED(15,0) 237,239,239,240
2	NAME	IN RECORD,BASED(PTR),UNALIGNED,STRING(40),CHARACTER 12,431,819,867,873
4	NAML	IN RECL(500),AUTOMATIC,UNALIGNED,STRING(40),CHARACTER 241,241,254,470,470,504,520,520,543,543,570,819,867,873
3	***** NORM	(2,16,13)STATIC,EXTERNAL,ALIGNED,BINARY,FIXED(15,0) 139,144,144
3	NORM2	(2,16,2)STATIC,EXTERNAL,ALIGNED,DECIMAL,FLOAT(SINGLE)
5	***** NT	AUTOMATIC,ALIGNED,BINARY,FIXED(15,C) 139,144,144,613,615,616
5	NTT	AUTOMATIC,UNALIGNED,STRING(1),CHARACTER 594,612,614,630,631
3	OAK	(4)STATIC,EXTERNAL,UNALIGNED,STRING(40),CHARACTER,VARYING 312
3	OK	(10)STATIC,EXTERNAL,UNALIGNED,STRING(35),CHARACTER,VARYING 356
271	OKB	AUTOMATIC,UNALIGNED,STRING(1),BIT 273,274,307,307,311,316,318,320,320,324,330,330,334,338,338,342
77	OKB	AUTOMATIC,UNALIGNED,STRING(1),BIT 79,80,95,95,97,97,99,101,101,103,103,111
3	OPSOK	(6)STATIC,EXTERNAL,UNALIGNED,STRING(40),CHARACTER,VARYING 325,335
5	***** OPT	AUTOMATIC,ALIGNED,BINARY,FIXED(15,0) 584,585,585,622,635,635,635,640,660,682,684,695,707,724,757,759,793 795,795,801,801,809,845,887
2	OQ	(2)IN EDUCATION IN RECORD,BASED(PTR),UNALIGNED,STRING(30),CHARACTER 70,70,401,401,404,404

DCL NO.	IDENTIFIER	ATTRIBUTES AND REFERENCES
77	***** Q	423,423,425,425,425,426,431,431,434,434,579,642,643,644,645,646,647 648,649,650,651,652,655,661,662,677,678,692,693,697,698,705,709,710 711,712,713,713,713,713,713,713,713,713,713,713,713,713,713,713 713,713,713,713,713,714,715,715,722,733,739,743,800,803,803 805,805,818,819,820,821,821,822,822,823,826,828,829,830,832,834,835 838,838,838,839,841,849,858,859,860,861,862,867,868,869,873,874,875 876,878,878,879,881,888
11	***** Q	AUTOMATIC,ALIGNED,BINARY,FIXED(15,0) 84,85,89,89,90 AUTOMATIC,ALIGNED,BINARY,FIXED(15,0) 36,37,42,45
2	QUAL	(30)IN EDUCATION IN RECORD,BASED(PTR),UNALIGNED,STRING(10),CHARACTER 38,39,383
2	QUALNO	IN EDUCATION IN RECORD,BASED(PTR),UNALIGNED,STRING(2),CHARACTER 17,36,379,380
1	R	ENTRY,DECIMAL,FLOAT(SINGLE)
10	RECIN	ENTRY,DECIMAL,FLOAT(SINGLE) 658
4	RECL	(500)AUTOMATIC,STRUCTURE 243,243,244,244,245,245,472,472,473,473,474,474,522,522,523,523,524 524,545,545,546,546,547,547,786,797
2	RECORD	BASED(PTR),STRUCTURE 642,655,662,733
2	REG	IN GENERAL IN RECORD,BASED(PTR),UNALIGNED,STRING(1),CHARACTER 12,99,99,315,316,316
2	REL	IN GENERAL IN RECORD,BASED(PTR),UNALIGNED,STRING(1),CHARACTER 12,95,95,95,338,338,338,340
3	RK	(5)STATIC,EXTERNAL,UNALIGNED,STRING(30),CHARACTER,VARYING 344
11	***** S	AUTOMATIC,ALIGNED,BINARY,FIXED(15,0) 18,19,22,25,34
373	SAQNT	ENTRY,DECIMAL,FLOAT(SINGLE) 457
	SCARDS	FILE,EXTERNAL 12,13,14,17,20,26,29,35,38,46,53,57,65,70,117,155,158,166,195,208 581,583,584,598,651,671,697,713,726
2	SCH	(10)IN EDUCATION IN RECORD,BASED(PTR),UNALIGNED,STRING(5),CHARACTER 20,377

DCL NO.	IDENTIFIER	ATTRIBUTES AND REFERENCES
2	SCHNO	IN EDUCATION IN RECORD,BASED(PTR),UNALIGNED,STRING(2),CHARACTER 17,18,374,375
2	SET	IN GENERAL IN RECORD,BASED(PTR),UNALIGNED,STRING(1),CHARACTER 12,97,97,97,307,307,307,309
2	SEX	IN GENERAL IN RECORD,BASED(PTR),UNALIGNED,STRING(1),CHARACTER 12,91,91,275
2	SOC	IN GENERAL IN RECORD,BASED(PTR),UNALIGNED,STRING(1),CHARACTER 12,103,103,103,103,320,320,322,328
211	SPNT	ENTRY,DECIMAL,FLCAT(SINGLE) 765,772
464	SPNT1	ENTRY,DECIMAL,FLCAT(SINGLE) 779
	SPRINT	FILE,EXTERNAL 24,44,90,92,94,96,98,100,102,104,106,108,110,112,120,123,126,131,157 161,192,215,218,219,222,223,224,230,233,234,235,251,254,256,258,276 277,279,281,283,285,286,288,291,294,295,297,301,304,306,310,312,313 317,319,323,325,326,329,333,335,336,341,343,344,347,348,350,356,359 362,364,366,367,370,374,377,379,381,383,385,389,390,394,395,398,400 403,404,407,410,415,425,426,430,431,434,439,441,442,448,454,456,458 460,484,485,491,492,502,503,504,509,511,512,556,557,558,560,564,568 569,570,572,574,575,579,587,622,623,625,627,629,631,633,634,745,763 770,777,782,805,813,841,853,881,892
4	START	IN RECL(500),AUTOMATIC,UNALIGNED,STRING(6),CHARACTER 254,254,254,254,570,821,869
2	***** STFN	(2,16)IN INTEL IN RECORD,BASED(PTR),ALIGNED,BINARY,FIXED(15,0) 141,146
3	STK	(6)STATIC,EXTERNAL,UNALIGNED,STRING(50),CHARACTER,VARYING 313
8	STUDENT	FILE,EXTERNAL,RECORD,ENVIRONMENT(F(2416)) 641,654,662,664,665,667,668,674,677,733,752,753,790,800,815,855
2	SUB	(2)IN EDUCATION IN RECORD,BASED(PTR),UNALIGNED,STRING(36),CHARACTER 65,395,395
2	SUBCAR	IN FINALS IN RECORD,BASED(PTR),UNALIGNED,STRING(1),CHARACTER 208,426
	SUBSTR	GENERIC,BUILT-IN FUNCTION 27,78,81,83,107,107,109,151,168,170,171,175,176,180,180,194,199,199 205,221,254,254,254,254,254,256,256,266,266,266,272,293,306 306,395,395,415,423,434,535,536,543,543,553,562,565,570,570,572 692,711,756,756,756,803,803,805,829,834,862,863,864
508	SM	AUTOMATIC,UNALIGNED,STRING(1),BIT

DCL NO.	IDENTIFIER	ATTRIBUTES AND REFERENCES
212	SW	517,525,528,540,548,551 AUTOMATIC,UNALIGNED,STRING(1),BIT 238,246,249
116	SW	AUTOMATIC,UNALIGNED,INITIAL,STRING(1),BIT 132,135
2	TC	IN FINALS IN RECORD,BASED(PTR),UNALIGNED,STRING(1),CHARACTER 208,425
2	TITLE	IN GENERAL IN RECORD,BASED(PTR),UNALIGNED,STRING(2),CHARACTER 12,280,282,284
5	TRANS	AUTOMATIC,UNALIGNED,STRING(2),CHARACTER 590
2	TFT	(2,2)IN GENERAL IN RECORD,BASED(PTR),UNALIGNED,STRING(6),CHARACTER 12,78,81,109,208,209,272,287,289,292,423,423,434,434,692,697,698,803 849,859,860,861,862,869
4	TYPE	IN RECL(500),AUTOMATIC,UNALIGNED,STRING(1),CHARACTER 470,470,501,503,520,532,553,562,565,567,569,825,839,842,877,879 882
2	UNCOL	(2)IN EDUCATION IN RECORD,BASED(PTR),UNALIGNED,STRING(21),CHARACTER 57,387,387,390,390,832,835
2	UNOTH	(2)IN EDUCATION IN RECORD,BASED(PTR),UNALIGNED,STRING(21),CHARACTER 65,392,392,395,395,826,830
153	UPDATE	ENTRY,DECIMAL,FLGAT(SINGLE) 686
2	***** VALUES	(2,6)IN INTEL IN RECORD,BASED(PTR),ALIGNED,BINARY,FIXED(15,0) 117,119,119
5	VP	AUTOMATIC,UNALIGNED,STRING(1),CHARACTER 595,609,632
5	VPB	AUTOMATIC,UNALIGNED,STRING(1),BIT 610,611,635,687,699,716,727
5	***** VPI	AUTOMATIC,ALIGNED,BINARY,FIXED(15,0) 429,432,437,446,452,689,701,718,729,794
5	WC	AUTOMATIC,UNALIGNED,STRING(1),CHARACTER 697,698
2	WS	IN FINALS IN RECORD,BASED(PTR),UNALIGNED,STRING(1),CHARACTER 208,425
271	X1	AUTOMATIC,DEFINED,UNALIGNED,STRING(1),CHARACTER 294

DCL NO.	IDENTIFIER	ATTRIBUTES AND REFERENCES
154	X1	AUTOMATIC,UNALIGNED,STRING(1),CHARACTER 155,156,158,159,164
11	X10	AUTOMATIC,UNALIGNED,STRING(10),CHARACTER 46,47
508	X2	AUTOMATIC,UNALIGNED,STRING(2),CHARACTER 553,554,562,565
77	X2	AUTOMATIC,UNALIGNED,STRING(2),CHARACTER 81,82,83,84
11	X2	AUTOMATIC,UNALIGNED,STRING(2),CHARACTER
11	X5	AUTOMATIC,UNALIGNED,STRING(5),CHARACTER 26,27,29,35
271	X6	AUTOMATIC,UNALIGNED,STRING(6),CHARACTER 287,288,289,290,291,292,293
264	X6	PARAMETER,UNALIGNED,STRING(6),CHARACTER 263,265,266,266,266
154	XVAR	AUTOMATIC,UNALIGNED,STRING(4),CHARACTER,VARYING 176,177
2	YC	IN GENERAL IN RECORD,BASED(PTR),UNALIGNED,STRING(2),CHARACTER 12
5	YE	AUTOMATIC,UNALIGNED,STRING(4),CHARACTER 511,583,622,763,770,777
5	***** YR	AUTOMATIC,ALIGNED,BINARY,FIXED(15,0) 117,117,117,117,119,122,122,125,125,129,129,139,141,144,144,146 151,618,620,621
5	YT	AUTOMATIC,UNALIGNED,STRING(1),CHARACTER 593,617,619,628,629

AGGREGATE LENGTH TABLE

STATEMENT NO.	IDENTIFIER	LENGTH IN BYTES
3	GRK	330
6	L	80
3	MK	36
115	MNT	32
3	NORM	832
3	NORM2	256
3	OAK	160
3	OK	350
3	OPSOK	240
3	ORP	180
3	PSOK	325
4	RECL	47000
2	RECORD	2416
3	RK	150
3	STK	300

STORAGE REQUIREMENTS.

THE STORAGE AREA FOR THE PROCEDURE LABELLED R IS 49008 BYTES LONG.
THE STORAGE AREA FOR THE PROCEDURE LABELLED RECIN IS 1236 BYTES LONG.
THE STORAGE AREA FOR THE PROCEDURE LABELLED CHECKREC IS 1072 BYTES LONG.
THE STORAGE AREA FOR THE PROCEDURE LABELLED ITRCIN IS 1028 BYTES LONG.
THE STORAGE AREA FOR THE PROCEDURE LABELLED UPDATE IS 1160 BYTES LONG.
THE STORAGE AREA FOR THE PROCEDURE LABELLED SPNT IS 1228 BYTES LONG.
THE STORAGE AREA FOR THE ON UNIT AT STATEMENT NO. 231 IS 956 BYTES LONG.
THE STORAGE AREA FOR THE PROCEDURE LABELLED PRINT IS 1040 BYTES LONG.
THE STORAGE AREA FOR THE PROCEDURE LABELLED CDATE IS 1000 BYTES LONG.
THE STORAGE AREA FOR THE PROCEDURE LABELLED GENPNT IS 1200 BYTES LONG.
THE STORAGE AREA FOR THE PROCEDURE LABELLED COUNPT IS 1152 BYTES LONG.
THE STORAGE AREA FOR THE PROCEDURE LABELLED SAQPNT IS 1188 BYTES LONG.
THE STORAGE AREA FOR THE PROCEDURE LABELLED APPNT IS 1020 BYTES LONG.
THE STORAGE AREA FOR THE PROCEDURE LABELLED SPNT1 IS 1052 BYTES LONG.
THE STORAGE AREA FOR THE PROCEDURE LABELLED DESPNT IS 1184 BYTES LONG.
THE STORAGE AREA FOR THE ON UNIT AT STATEMENT NO. 510 IS 900 BYTES LONG.
THE STORAGE AREA FOR THE ON UNIT AT STATEMENT NO. 578 IS 908 BYTES LONG.
THE STORAGE AREA FOR THE ON UNIT AT STATEMENT NO. 581 IS 896 BYTES LONG.
THE STORAGE AREA FOR THE ON UNIT AT STATEMENT NO. 666 IS 928 BYTES LONG.
THE STORAGE AREA FOR THE ON UNIT AT STATEMENT NO. 754 IS 1192 BYTES LONG.
THE PROGRAM CSECT IS NAMED R AND IS 98056 BYTES LONG.
THE STATIC CSECT IS NAMED *****RA AND IS 11297 BYTES LONG.

STATISTICS SOURCE RECORDS = 868, PROG TEXT STMTS = 893, OBJECT BYTES = 98056

COMPILER DIAGNOSTICS.

WARNINGS.

MEM02271 NO FILE/STRING OPTION SPECIFIED IN ONE OR MORE GET/PUT STATEMENTS. SYSIN/SYSPRINT HAS BEEN ASSUMED IN EACH CASE.

MEM07641 ONE OR MORE FIXED BINARY ITEMS OF PRECISION 15 OR LESS HAVE BEEN GIVEN HALFWORD STORAGE. THEY ARE FLAGGED '*****' IN THE XREF/ATR LIST.

MEM17901 DATA CONVERSIONS WILL BE DONE BY SUBROUTINE CALL IN THE FOLLOWING STATEMENTS 18, 36, 63, 82, 84, 177, 300, 309, 322, 332, 340, 353, 368, 375, 380, 709, 712, 875.

END OF DIAGNOSTICS.

COMPILE TIME 97.41 SECS
ELAPSED TIME 243.33 SECS

THE COMPLETE LIST OF OPTIONS USED DURING THIS COMPILATION IS--

ERCDIC
CHAR60
NOMACRO
SOURCE2
NOMACDCK
COMP
SCURCE
ATR
XREF
NCEXTREF
NOLIST
NOLOAD
DECK
FLAGW
STMT
SIZE=010P
LINECNT=060
OPT=01
SORMGIN=(001,072)
NEST
CPLIST

OPTIONS IN EFFECT EBCDIC,CHAR60,NOMACRO,SOURCE2,NOMACDCK,COMP,SOURCE,ATR,XREF,NCEXTREF,NOLIST,NOLOAD,
OPTIONS IN EFFECT DECK,FLAGW,STMT,SIZE=010P,LINECNT=060,CPT=01,SORMGIN=(001,072),
OPTIONS IN EFFECT NEST,CPLIST

STMT LEVEL NEST

STMT	LEVEL	NEST	CODE	ADDRESS
1			CON:PROC(FILN2);	R0008700
2	1		DCL FILN2 CHAR(8);	R0008710
3	1		DCL (I,J,K) FIXED BINARY, AK(3,26) FIXED BINARY EXTERNAL, (AUTR(1,*) CHAR(19), AUTR1(1,*) CHAR(3), ATAB(1,*) CHAR(3), ATAB1(1,*) FIXED BINARY) CONTROLLED EXTERNAL, (ALPHA CHAR(26), NALC FIXED BINARY) EXTERNAL;	R0008720 R0008730 R0008740 R0008750 R0008760
4	1		DCL (SCK(9) CHAR(60), PSOK(5) CHAR(55), STK(6) CHAR(50), MK(3) CHAR(12), OK(10) CHAR(35), FK(5) CHAR(30), GRC CHAR(11), GRK(11) CHAR(30), OAK(4) CHAR(40), ORK(6) CHAR(30), OPSOK(6) CHAR(40)) VARYING EXTERNAL;	R0008770 R0008780 R0008790 R0008800 R0008810 R0008820
5	1		DCL NORM(2,16,10) FIXED BINARY EXTERNAL;	R0008830
6	1		DCL NORM2(2,16,2) FLOAT DECIMAL EXTERNAL;	R0008840
7	1		DCL CONST FILE;	R0008850
8	1		OPFN FILE(CONST) INPUT TITLE(FILN2);	R0008860
9	1		DO I=1 TO 26;	R0008870
10	1	1	GET FILE(CONST) LIST(AK(1,I));	R0008880
11	1	1	END;	R0008890
12	1		AK(2,1)=1; AK(3,1)=AK(2,1)+AK(1,1)-1;	R0008900
14	1		DO I=2 TO 26;	R0008910
15	1	1	AK(2,I)=AK(3,I-1)+1;	R0008920
16	1	1	AK(3,I)=AK(1,I)+AK(2,I)-1;	R0008930
17	1	1	END;	R0008940
18	1		N=SUM(AK(1,*));	R0008950
19	1		ALLOCATE AUTR(N),AUTR1(N);	R0008960
20	1	1	DO K=1 TO 26;	R0008970
21	1	1	DO I=AK(2,K) TO AK(3,K);	R0008980
22	1	2	GET FILE(CONST) EDIT(AUTR(I),AUTR1(I)) (COL(1),A(19),COL(40),A(3));	R0008990 R0009000 R0009010 R0009020
23	1	2	END;	R0009030
24	1	1	END;	R0009040
25	1		GET FILE(CONST) EDIT((OAK(K) DO K=1 TO 4))(4(COL(1),A(40)));	R0009050
26	1		GET FILE(CONST) EDIT((OR(K) DO K=1 TO 6))(6(COL(1),A(30)));	R0009060
27	1		GET FILE(CONST) EDIT((OPSOK(K) DO K=1 TO 6))(6(COL(1),A(40)));	R0009070
28	1		GET FILE(CONST) EDIT((SCK(I) DO I=1 TO 9))(9(COL(1),A(60)));	R0009080
29	1		GET FILE(CONST) EDIT((PSOK(I) DO I=1 TO 5))(5(COL(1),A(65)));	R0009090
30	1		GET FILE(CONST) EDIT((STK(I) DO I=1 TO 6))(6(COL(1),A(50)));	R0009100
31	1		GET FILE(CONST) EDIT((MK(I) DO I=1 TO 3))(3(COL(1),A(12)));	R0009110
32	1		GET FILE(CONST) EDIT((OK(I) DO I=1 TO 10))(10(COL(1),A(35)));	R0009120
33	1		GET FILE(CONST) EDIT((RK(I) DO I=1 TO 5))(5(COL(1),A(30)));	R0009130
34	1		GET FILE(CONST) EDIT((GRK(I) DO I=1 TO 11))(11(COL(1),A(30)));	R0009140
35	1		GET FILE(CONST) EDIT(ALPHA)(COL(1),A(26));	R0009150
36	1		GRC=SUBSTR(ALPHA,1,11);	R0009160
37	1		GET FILE(CONST) EDIT(NALC)(COL(1),F(3));	R0009170
38	1		ALLOCATE ATAB(NALC),ATAB1(NALC);	R0009180
39	1		GET FILE(CONST) SKIP;	R0009190
40	1		GET FILE(CONST) EDIT((ATAB(I),ATAB1(I) DO I=1 TO NALC)) (X(2),A(3),X(1),F(2));	R0009200 R0009210 R0009220 R0009230 R0009240 R0009250
41	1	1	DO I=1 TO 2;	
42	1	1	DO J=1 TO 16;	
43	1	2	GET FILE(CONST) LIST((NORM(I,J,K) DO K=1 TO 10));	
44	1	2	GET FILE(CONST) LIST((NORM2(I,J,K) DO K=1 TO 2));	
45	1	2	END;	
46	1	1	END;	

STMT LEVEL NEST

47	1	
48	1	END; CLOSE FILE(CONST);

RG009260
R0009270

ATTRIBUTE AND CROSS-REFERENCE TABLE

DCL NO. IDENTIFIER

ATTRIBUTES AND REFERENCES

3	***** AK	(3,26) STATIC, EXTERNAL, ALIGNED, BINARY, FIXED(15,0) 10,12,13,13,13,15,15,16,16,16,18,21,21
3	ALPHA	STATIC, EXTERNAL, UNALIGNED, STRING(26), CHARACTER 35,36
3	ATAB	(*) EXTERNAL, CONTROLLED, UNALIGNED, STRING(*), CHARACTER 38,40
3	***** ATAB1	(*) EXTERNAL, CONTROLLED, ALIGNED, BINARY, FIXED(15,0) 38,40
3	AUTR	(*) EXTERNAL, CONTROLLED, UNALIGNED, STRING(*), CHARACTER 19,22
3	AUTR1	(*) EXTERNAL, CONTROLLED, UNALIGNED, STRING(*), CHARACTER 19,22
1	CON	ENTRY, DECIMAL, FLGAT(SINGLE)
7	CONST	FILE, EXTERNAL 8,10,22,25,26,27,28,29,30,31,32,33,34,35,37,39,40,43,44,47
2	FILN2	PARAMETER, UNALIGNED, STRING(8), CHARACTER 1,8
4	GRC	STATIC, EXTERNAL, UNALIGNED, STRING(11), CHARACTER, VARYING 36
4	GRK	(11) STATIC, EXTERNAL, UNALIGNED, STRING(30), CHARACTER, VARYING 34
3	***** I	AUTOMATIC, ALIGNED, BINARY, FIXED(15,0) 9,10,14,15,15,16,16,21,22,22,28,28,29,29,30,30,31,31,32,32,33,33 34,34,40,40,40,41,43,44
3	***** J	AUTCMATIC, ALIGNED, BINARY, FIXED(15,0) 42,43,44
3	***** K	AUTOMATIC, ALIGNED, BINARY, FIXED(15,0) 20,21,21,25,25,26,26,27,27,43,43,44,44
4	MK	(3) STATIC, EXTERNAL, UNALIGNED, STRING(12), CHARACTER, VARYING 31
	***** N	AUTCMATIC, ALIGNED, BINARY, FIXED(15,0) 18,19,19
3	***** NALC	STATIC, EXTERNAL, ALIGNED, BINARY, FIXED(15,0) 37,38,38,40

DCL NO.	IDENTIFIER	ATTRIBUTES AND REFERENCES
5	***** NORM	(2,16,10) STATIC, EXTERNAL, ALIGNED, BINARY, FIXED(15,0) 43
6	NORM2	(2,16,2) STATIC, EXTERNAL, ALIGNED, DECIMAL, FLOAT(SINGLE) 44
4	OAK	(4) STATIC, EXTERNAL, UNALIGNED, STRING(40), CHARACTER, VARYING 25
4	OK	(10) STATIC, EXTERNAL, UNALIGNED, STRING(35), CHARACTER, VARYING 32
4	OPSOK	(6) STATIC, EXTERNAL, UNALIGNED, STRING(40), CHARACTER, VARYING 27
4	ORK	(6) STATIC, EXTERNAL, UNALIGNED, STRING(30), CHARACTER, VARYING 26
4	PSOK	(5) STATIC, EXTERNAL, UNALIGNED, STRING(65), CHARACTER, VARYING 29
4	RK	(5) STATIC, EXTERNAL, UNALIGNED, STRING(30), CHARACTER, VARYING 33
4	SCK	(9) STATIC, EXTERNAL, UNALIGNED, STRING(60), CHARACTER, VARYING 28
4	STK	(6) STATIC, EXTERNAL, UNALIGNED, STRING(50), CHARACTER, VARYING 30
	SUBSTR	GENERIC, BUILT-IN FUNCTION 36
	SUM	GENERIC, BUILT-IN FUNCTION 18

AGGREGATE LENGTH TABLE

STATEMENT NO.	IDENTIFIER	LENGTH IN BYTES
3	AK	156
38	ATAB	ADJUSTABLE
38	ATAB1	ADJUSTABLE
19	AUTR	ADJUSTABLE
19	AUTR1	ADJUSTABLE
4	GRK	330
4	MK	36
5	NORM	640
6	NORM2	256
4	OAK	160
4	OK	350
4	OPSOK	240
4	ORK	180
4	PSOK	325
4	RK	150
4	SCK	540
4	STK	300

STORAGE REQUIREMENTS.

THE STORAGE AREA (IN STATIC) FOR THE PROCEDURE LABELLED CON IS 388 BYTES LONG.
THE PROGRAM CSECT IS NAMED CON AND IS 4294 BYTES LONG.
THE STATIC CSECT IS NAMED ****CONA AND IS 1044 BYTES LONG.

STATISTICS SOURCE RECORDS = 58, PROG TEXT STMENTS = 48, OBJECT BYTES = 4294

COMPILER DIAGNOSTICS.

WARNINGS.

1 IEM0526I 1 OPTION MAIN HAS NOT BEEN SPECIFIED FOR THE EXTERNAL PROCEDURE, STATEMENT NUMBER 1
IEM0764I ONE OR MORE FIXED BINARY ITEMS OF PRECISION 15 OR LESS HAVE BEEN GIVEN HALFWORD STORAGE. THEY
ARE FLAGGED '*****' IN THE XREF/ATR LIST.

END OF DIAGNOSTICS.

COMPILE TIME 10.93 SECS
ELAPSED TIME 26.14 SECS
EXECUTION TERMINATED

4. PROGRAMME F.

4.2 PROGRAMME LISTING

THIS SECTION CONTAINS A LISTING OF THE SOURCE CODE OF PROGRAMME F.

```

1 (SUBRG):(STRG):
2 F:PROCEDURE OPTICNS('MAIN');
3 CCL 1 RECORD BASEC(PTF),
4 (DESNO CHAR(8), NAME CHAR(40)),
5 2 GENERAL,
6 3 (PNAME CHAR(17), (TITLE,YC) CHAR(2), (SEX,REG) CHAR(1)),
7 3 (DOB,C,MART,SET,POCC,SCCC,OV25,REL,CONF) CHAR(1)),
8 3 (CDB,TFT(2,2)) CHAR(6),AUTH CHAR(19),AUTHNO CHAR(1)),
9 3 FPOS CHAR(4),
10 2 EDUCATION,
11 3 (SCHNO CHAR(2), SCH(10) CHAR(5)),
12 3 (QUALNO CHAR(2), QUAL(30) CHAR(10)),
13 3 (UNCOL(2) CHAR(21), FPT(2) CHAR(1), FT(2,2) CHAR(6)),
14 3 (UNOTH(2) CHAR(21), DEG(2) CHAR(3), HPCD(2) CHAR(4)),
15 3 (SUB(2) CHAR(36), DAT(2) CHAR(6)),
16 3 (ADIP CHAR(30), ADIPC CHAR(1)),
17 3 DDIPC CHAR(1),
18 3 (OQ(2) CHAR(30), OQC(2) CHAR(4)),
19 3 ATO CHAR(1),
20 2 COURSE,
21 3 (LEN CHAR(1), CODES(4) CHAR(3)),
22 3 (LE,DC(4,24:64)) CHAR(1)),
23 3 (DC1(4,26:30) CHAR(2)),
24 3 (DC4(4),DC49(4)) CHAR(3)),
25 2 FINALS,
26 3 (ITC,WS,BE,SUBCAR) CHAR(1)),
27 2 ANNPRG,
28 3 AP CHAR(802),
29 3 (LEAP,FK(10,2)) FIXED BINARY),
30 2 INTEL,
31 3 (INTELB CHAR(2),(VALUES(2,6), DSCALE(2)) FIXED BINARY),
32 3 (AH4(2,3),PF16(2,16)) FIXED BINARY),
33 3 STEN(2,16) FIXED BINARY;
34
35 /-----*/
36 DCL (AGF(3),SXF(2),(PDF,RLF)(5),SCF(6),MAF(3),RGF(11),STF(6),
37 FPF(10,10),OVF(3:10),SCF(0:9)) FIXED BIN;
38 DCL (SCK(9) CHAR(50), PSOK(5) CHAR(65), STK(6) CHAR(50),
39 MK(3) CHAR(12), OK(10) CHAR(35), RK(5) CHAR(30), GRC CHAR(11),
40 GRK(11) CHAR(30)) VARYING EXTERNAL;
41 DCL (OAK(4) CHAR(40), GRK(6) CHAR(30)) VARYING EXTERNAL;
42 DCL (DAF(4),ORF(6)) FIXED BINARY;
43 DCL OPSOK(6) CHAR(40) VARYING EXTERNAL;
44 DCL (OPDCF(6),OSDCF(7)) FIXED BINARY;
45 DCL (CLAB,RLAR)(20) FIXED BINARY,RITEM(20) CHAR(20)
46 VARYING, LOP(20) CHAR(1);
47 DCL (FILN1,FILN2,WD,DT,DESL(1000)) CHAR(8), YE CHAR(4), WRL
48 CHAR(3), (WCR,FREQ) CHAR(1), (WB,RB,LB,FB) BIT(1),(KT,OPT,K) FIXED
49 BINARY, REQUEST CHAR(400) VARYING, BCON BIT(1) INITIAL('1'B),
50 (DESND2,DESND3) CHAR(8), (SUPP,WPB,LPB,RPB,B) BIT(1);
51 DCL CON ENTRY(CHAR(8));
52
53 /-----*/
54 DCL STUDENT FILE RECORD ENV(F(2416));
55
56 /-----*/
57 TRANS:PROC(REQUEST,LOP,CLAB,RLAB,PTFM,K);
58
59 /-----*/
60
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333 /*****PROGRAMME
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56 DCL (CLAB,RLAB)(20) FIXED BINARY,RITEM(20) CHAR(20)
57 VARYING, LOP(20) CHAR(1);
58 ECL REQUEST CHAR(400) VARYING;
59 DCL PCOND(6) CHAR(2) VARYING INITIAL(' ','-','>','<','>','<');
60 DCL X1 CHAR(1),LR CHAR(3),(I,J,K,LK,LL,LB,NR) FIXED BINARY;
61 LL=LENGTH(REQUEST);
62 K=0; LK=1;
63 DO I=1 TO LL;
64 X1=SUBSTR(REQUEST,I,1);
65 IF X1=' ' THEN
66 DO; LB=1;
67 GOTO L61;
68 END; ELSE
69 IF X1='<' | X1='>' THEN
70 DO; LK=LK+1;
71 LOP(LK)=X1;
72 GOTO L61;
73 END; ELSE
74 DO J=1,3,5;
75 IF X1=PCOND(J) THEN GOTO L62;
76 END;
77 GOTO L61;
78 NB=INDEX(SUBSTR(REQUEST,I),' ');
79 IF SUBSTR(REQUEST,I-1,1)='-' THEN
80 DO; K=K+1;
81 CLAB(K)=J+1;
82 LR=SUBSTR(REQUEST,LB+1,I-LB-2);
83 RLAB(K)=LR;
84 END; ELSE
85 DO; K=K+1;
86 CLAB(K)=J;
87 LR=SUBSTR(REQUEST,LB+1,I-LB-1);
88 RLAB(K)=LR;
89
90 END;
91 RITEM(K)=SUBSTR(REQUEST,I+1,NB-2);
92 I=I+NB-1;
93 L61: END;
94 DO I=1 TO K;
95 IF RLAB(I)<1 | RLAB(I)>40 THEN
96 DO; PUT EDIT('ERROR...ITEM',RLAB(I),'NOT INCLUDED')
97 (SKIP,COL(1),A,X(1),F(2),X(1),A);
98 DO J=1 TO K-1;
99 LOP(J)=LOP(J+1);
100 RLAB(J)=RLAB(J+1);
101 CLAB(J)=CLAB(J+1);
102 RITEM(J)=RITEM(J+1);
103 K=K-1;
104 END;
105 END;
106
107 END;
108
109 /*****
110 LOCST:PROC(LCP,CLAB,RLAB,RITEM,K) RETURNS(BIT(1));
111 DCL LOP(20) CHAR(1),(CLAB,RLAB)(20) FIXED BINARY, RITEM(20)
112 CHAR(20) VARYING;
113 DCL REQ1 CHAR(12), (REQM,ITEM) CHAR(20) VARYING, (K,I,J,OS)
114 FIXED BINARY;
115 /*****
FIND:PROCEDURE(ITEM,LR,REQ1);
DCL (ITEM CHAR(20), XVAR CHAR(3)) VARYING, (LR,KC,I,J) FIXED

```

```

/*****
/ VARIABLE DECLARATIONS
/
/ RELATIONAL OPERATOR LIST
/
/ CALCULATE LENGTH OF REQUEST
/
/ REMOVE FIRST/NEXT CHARACTER
/ TEST FOR BLANK
/ -> RESET LOWER BOUND
/ -> BRANCH FOR NEXT CHARACTER
/
/ TEST FOR LOGICAL OPERATOR
/ -> UPDATE LOGICAL OPERATOR COUNTER
/ -> ADD LOGICAL OPERATOR TO LOP VECTOR
/ -> BRANCH FOR NEXT CHARACTER
/
/ TEST FOR RELATIONAL OPERATOR
/ -> BRANCH IF FOUND
/
/ BRANCH FOR NEXT CHARACTER
/ LOCATE NEXT BLANK
/ TEST RELATIONAL OP. FOR 'NOT' CASE
/ -> UPDATE SIMPLE REQUEST COUNTER
/ -> RECORD RELATIONAL OP. NUMBER
/ -> REMOVE ITEM NUMBER
/ -> RECORD ITEM NUMBER
/ RELATIONAL OP. NOT 'NOT' CASE
/ -> UPDATE SIMPLE REQUEST COUNTER
/ -> RECORD RELATIONAL OP. NUMBER
/ -> REMOVE ITEM NUMBER
/ -> RECORD ITEM NUMBER
/
/ RECORD ITEM VALUE
/ RESET CONTROL VARIABLE TO NEXT BLANK
/ BRANCH FOR NEXT CHARACTER
/
/ TEST ITEM NUMBERS OF ALL SIMPLE REQUESTS
/ -> CLASS G ERROR/WARNING
/
/ OVERWRITE SIMPLE REQUEST
/ -> LOGICAL OPERATOR
/ -> ITEM NUMBER
/ -> RELATIONAL OPERATOR
/ -> ITEM VALUE
/ -> RESET SIMPLE REQUEST COUNTER
/
/
/
/
/ LOCATE AND TEST REQUEST ROUTINE
/
/ VARIABLE DECLARATIONS
/
/
/
/
/ LOCATE ITEM VALUE
/
/

```



```

176 X20=ITEM; ITEM=((20)' '); SUBSTR(ITEM,21-LENGTH(X20))=X20;
177 X20=REQU; REQU=((20)' '); SUBSTR(REQU,21-LENGTH(X20))=X20;
178 GOTO C(COND);
179 C1: IF ITEM=REQU THEN RETURN('1'B); ELSE RETURN('0'B);
180 C2: IF ITEM=REQU THEN RETURN('1'B); ELSE RETURN('0'B);
181 C3: IF ITEM>REQU THEN RETURN('1'B); ELSE RETURN('0'B);
182 C4: IF ITEM<>REQU THEN RETURN('1'B); ELSE RETURN('0'B);
183 C5: IF ITEM<REQU THEN RETURN('1'B); ELSE RETURN('0'B);
184 C6: IF ITEM<REQU THEN RETURN('1'B); ELSE RETURN('0'B);
185 END;
186 DCL TEST ENTRY(,) RETURNS(1);
187 /*****
188 DO I=1 TO K;
189 IF RLAB(I)=4 | RLAB(I)=6 | RLAB(I)=7 | RLAB(I)=9 | RLAB(I)=19
190 | RLAB(I)=21 | RLAB(I)=24 | RLAB(I)=36 | RLAB(I)=40 THEN
191 REQI=SUBSTR(RITEM(I),INDEX(RITEM(I),' '));
192 IF RLAB(I)=4 | RLAB(I)=6 | RLAB(I)=7 | RLAB(I)=9 | RLAB(I)=36
193 | RLAB(I)=40 THEN IF SUBSTR(REQI,2,2)=SUBSTR(TTFT(1,1),5,2)
194 THEN IF I+1<=K & LOP(I+1)=1 THEN GOTO L66; ELSE RETURN('0'B);
195 CALL FIND(ITEM,RLAB(I),REQI);
196 IF RLAB(I)=4 | RLAB(I)=5 | RLAB(I)=7 | RLAB(I)=9 | RLAB(I)=19
197 | RLAB(I)=21 | RLAB(I)=24 | RLAB(I)=36 | RLAB(I)=40 THEN
198 REQM=SUBSTR(RITEM(I),1,INDEX(RITEM(I),' ')-1); ELSE
199 REQM=TRANSLATE(RITEM(I),' ','');
200 IF TEST(ITEM,CLAB(I),REQM) THEN
201 DO; DO J=I+1 TO K;
202 IF LOP(J)=1 THEN
203 DO; I=J-1;
204 GOTO L66;
205 END;
206 END;
207 RETURN('1'B);
208 END; ELSE
209 IF I+1<=K & LOP(I+1)=1 THEN GOTO L66; ELSE RETURN('0'B);
210 L66: END;
211 END;
212 DCL LOCIST ENTRY(,,) RETURNS(1);
213 /*****
214 SPNT:PROC;
215 DCL I FIXED BINARY;
216 PUT SKIP(3);
217 DO I=1 TO KT;
218 IF MOD(I-1,10)=0 THEN PUT SKIP;
219 PUT EDIT(DES(I))(X(3),A(8));
220 END;
221 END;
222 /*****
223 RREQK:PROCEDURE;
224 DCL K FIXED BINARY;
225 PUT EDIT('MARITAL STATUS')(SKIP(3),A);
226 PUT SKIP;
227 DO K=1 TO 3;
228 PUT EDIT(K,M(K))(SKIP,F(1),COL(8),A);
229 END;
230 PUT EDIT('GEOGRAPHICAL REGION','NOT CODED PRIOR TO 1972')
231 (SKIP(3),A,COL(80),A);
232 PUT SKIP;
233 DO K=1 TO 11;
234 PUT EDIT(SUBSTR(GRC,K,1),GRK(K))(SKIP,A(1),COL(8),A);
235 END;

```

```

/* RIGHT JUSTIFY RECORD RESPONSE
/* RIGHT JUSTIFY REQUIRED VALUE
/* BRANCH TO REQUIRED TEST
/* -> CASE '='
/* -> CASE '>'
/* -> CASE '<'
/* -> CASE '<'
/* -> CASE '<'
/*
/*
/*****
/* CCNSIDER FIRST/NEXT SIMPLE REQUEST
/* -> LOCATE EXCEPTIONAL CASES 1.
/*
/* -> SEPARATE REQUIRED ITEM
/* -> LOCATE EXCEPTIONAL CASES 2.
/* -> TEST YEARS
/* -> BRANCH OR REJECT RECORD
/* -> FIND REQUIRED FIELD VALUE
/* -> LOCATE EXCEPTIONAL CASES 3.
/*
/* -> SEPARATE REQUIRED ITEM
/* -> CLEAR IMPEDDED BLANKS
/* -> TEST SIMPLE REQUEST
/*
/* -> TEST NEXT LOGICAL OPERATOR
/*
/* -> BRANCH FOR NEXT SIMPLE REQUEST
/*
/* -> ACCEPT THE RECORD
/*
/* -> BRANCH OR REJECT RECCRD
/* BRANCH FOR NEXT SIMPLE REQUEST
/*
/*
/*****
/* D.E.S.NO. OUTPUT ROUTINE
/*
/*****
/*
/* OUTPUT DES.NOS, TEN PER LINE
/*
/*
/*****
/* RECORD FREQUENCY KEYS
/*
/*****
/* MARITAL STATUS
/*
/*
/* GEOGRAPHICAL REGION
/*
/*
/*
/*

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236 PUT EDIT('SETTLEMENT','SETTLEMENT PRIOR TO 1972')
237 (SKIP(3),A,COL(90),A);
238 PUT SKIP;
239 DO K=1 TO 4;
240 PUT EDIT(K,STK(K),K,DAK(K))(SKIP,F(1),COL(8),A,COL(80),F(1),
241 COL(87),A);
242 END;
243 PUT EDIT('5',STK(5),'6',STK(6))(2(SKIP,A(1),COL(8),A));
244 PUT EDIT('OCCUPATION IF OVER 25')(SKIP(3),A);
245 PUT EDIT('C',OK(10))(SKIP(2),A(1),COL(8),A);
246 DO K=1 TO 9;
247 PUT EDIT(K,OK(K))(SKIP,F(1),CCL(8),A);
248 END;
249 PUT EDIT('STUDENT/PARENT/GUARDIAN OCCUPATION',
250 'STUDENT/PARENT/GUARDIAN OCCUPATION PRIOR TO 1972')
251 (PAGE,SKIP(3),A,COL(90),A);
252 PUT SKIP;
253 DO K=1 TO 5;
254 PUT EDIT(K,PSOK(K),K,OPSOK(K))(SKIP,F(1),CCL(8),A,CCL(80),F(1),
255 COL(87),A);
256 END;
257 PUT EDIT('6',OPSOK(K))(SKIP,COL(80),A,COL(87),A);
258 PUT EDIT('RELIGION','RELIGION PRIOR TO 1972')
259 (SKIP(3),A,COL(80),A);
260 PUT SKIP;
261 DO K=1 TO 5;
262 PUT EDIT(K,RK(K),K,ORK(K))(SKIP,F(1),COL(8),A,COL(80),F(1),
263 COL(87),A);
264 END;
265 PUT EDIT('6',ORK(6))(SKIP,COL(80),A,COL(87),A);
266 PUT EDIT('SCHOOL TYPE')(SKIP(3),A);
267 PUT SKIP;
268 DO K=1 TO 9;
269 PUT EDIT(K,SCK(K))(SKIP,F(1),COL(8),A);
270 END;
271 END;
272 /*****
273 RECFREQ:PROC;
274 DCL X2 CHAR(2), X1 CHAR(1), OKB BIT(1), (I,J,K) FIXED BINARY;
275 X2=SUBSTR(TTFT(1,1),5,2); I=X2; /* CONVERSION */
276 IF I<72 THEN OKB='1'B; ELSE OKB='0'B;
277 X2=SUBSTR(D0B,5,2);
278 J=X2; /* CONVERSION */
279 IF I>J THEN
280 DO; IF I-J=25 THEN AGF(1)=AGF(1)+1; ELSE AGF(2)=AGF(2)+1;
281 AGF(3)=AGF(3)+I-J;
282 END; ELSE
283 PUT EDIT(DESN0,'ERROR RETURNED....AGE')(SKIP,A(8),X(2),A);
284 IF SEX='M' THEN SXF(1)=SXF(1)+1; ELSE
285 IF SEX='F' THEN SXF(2)=SXF(2)+1; ELSE
286 PUT EDIT(DESN0,'ERROR RETURNED....SEX')(SKIP,A(8),X(2),A);
287 IF MART='1' & MART<='3' THEN
288 DO; I=MART; /* CCNVERSION */
289 MAF(1)=MAF(1)+1;
290 END; ELSE
291 PUT EDIT(DESN0,'ERROR RETURNED....MARITAL STATUS')
292 (SKIP,A(8),X(2),A);
293 IF REL='1' & REL<='5' & ~OKB THEN
294 DO; I=REL; /* CONVERSION */
295 RLF(1)=RLF(1)+1;

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296 END; ELSE
297 IF REL>='1' & REL<='6' & OK8 THEN
298 DO; I=REL;
299 ORF(I)=CRF(I)+1;
300 END; ELSE
301 PUT EDIT(DESNO,'ERROR RETURNED.....RELIGION')(SKIP,A(8),X(2),A);
302 IF SFT>='1' & SET<='6' & ~CK8 THEN
303 DO; I=SFT;
304 STF(I)=STF(I)+1;
305 END; ELSE
306 IF SET>='1' & SET<='4' & OK8 THEN
307 DO; I=SET;
308 OAF(I)=OAF(I)+1;
309 END; ELSE
310 PUT EDIT(DESNO,'ERROR RETURNED.....SETTLEMENT')
311 (SKIP,A(8),X(2),A);
312 IF POCC>='1' & POCC<='5' & ~CK8 THEN
313 DO; I=POCC;
314 POF(I)=POF(I)+1;
315 END; ELSE
316 IF POCC>='1' & POCC<='6' & OK8 THEN
317 DO; I=POCC;
318 OPOCF(I)=OPOCF(I)+1;
319 END; ELSE
320 PUT EDIT(DESNO,'ERROR RETURNED.....PARENT/GUARDIAN OCCUPATION')
321 (SKIP,A(8),X(2),A);
322 IF SOCC=' ' THEN IF ~OK8 THEN SOF(6)=SOF(6)+1; ELSE
323 OSOCF(7)=OSOCF(7)+1; ELSE
324 IF SOCC>='1' & SOCC<='5' & ~OK8 THEN
325 DO; I=SOCC;
326 SOF(I)=SOF(I)+1;
327 END; ELSE
328 IF SOCC>='1' & SOCC<='6' & OK8 THEN
329 DO; I=SOCC;
330 OSOCF(I)=OSOCF(I)+1;
331 END; ELSE
332 PUT EDIT(DESNO,'ERROR RETURNED.....STUDENT OCCUPATION')
333 (SKIP,A(8),X(2),A);
334 IF OV25=' ' THEN OVF(10)=OVF(10)+1; ELSE
335 IF OV25>='0' & OV25<='9' THEN
336 DO; I=OV25;
337 OVF(I)=OVF(I)+1;
338 END; ELSE
339 PUT EDIT(DESNO,'ERROR RETURNED.....OVER 25 OCCUPATION')
340 (SKIP,A(8),X(2),A);
341 IF OK8 THEN GOTO L3;
342 I=INDEX(GRC,REG);
343 IF I>=1 & I<=11 THEN RGF(I)=RGF(I)+1; ELSE
344 PUT EDIT(DESNO,'ERROR RETURNED.....REGION')(SKIP,A(8),X(2),A);
345 K=SCHNO;
346 DO J=1 TO K;
347 X1=SUBSTR(SCH(J),1,1);
348 IF X1>='0' & X1<='9' THEN
349 DO; I=X1;
350 SCF(I)=SCF(I)+1;
351 END; ELSE
352 PUT EDIT(DESNO,'ERROR RETURNED.....SCHOOL TYPE')
353 (SKIP,A(8),X(2),A);
354 END;
355 X2=SUBSTR(FPOS,1,2);

/*
/** RELIGION PRE 1972
/**
/**
/**
/** SETTLEMENT
/**
/**
/** SETTLEMENT PRE 1972
/**
/**
/**
/** PARENT/GUARDIAN OCCUPATION
/**
/**
/** PARENT/GUARDIAN OCCUPATION PRE 1972
/**
/**
/**
/** STUDENT OCCUPATION, AT SCHOOL
/**
/** STUDENT OCCUPATION
/**
/**
/** STUDENT OCCUPATION PRE 1972
/**
/**
/** OVER 25 OCCUPATION, UNDER 25
/** OVER 25 OCCUPATION
/**
/**
/**
/** BRANCH IF OLD CODE (PRE 1972)
/** GEOGRAPHICAL REGION
/**
/** SCHOOL TYPE
/**
/**
/**
/**
/**
/**
/**
/**
/** FAMILY POSITION
/**
```

3


```

476 GET DATA;
477 IF SUBSTR(WRL,1,1)='1' THEN WB='1'B; ELSE WB='0'B;
478 IF SUBSTR(WRL,1,1)='2' THEN WPR='1'B; ELSE WPR='0'B;
479 IF SUBSTR(WRL,2,1)='1' THEN RB='1'B; ELSE RB='0'B;
480 IF SUBSTR(WRL,2,1)='2' THEN RPB='1'B; ELSE RPB='0'B;
481 IF SUBSTR(WRL,3,1)='1' THEN LR='1'B; ELSE LR='0'B;
482 IF SUBSTR(WRL,3,1)='2' THEN LPB='1'B; ELSE LPB='0'B;
483 IF FREQ='1' THEN FR='1'B; ELSE FR='0'B;
484 PUT EDIT('BCRS...REDE COLLEGE RECORD SYSTEM','PROGRAMME F',
485 'OPTION REQUESTED',OPT,'YEAR REQUESTED',YE)(PAGE,COL(1),A,
486 SKIP(2),COL(1),A,COL(1),A,COL(32),F(2),COL(1),A,COL(32),A);
487 PUT SKIP(2);
488 IF WRL='XXX' THEN PUT EDIT('WRL REQUESTED',WRL)
489 (COL(1),A,COL(31),A); ELSE WRL='000';
490 IF WCR='X' THEN PUT EDIT('WCR REQUESTED',WCR)(COL(1),A,COL(33),
491 A); ELSE WCR='*';
492 IF FB THEN PUT EDIT('FREQUENCY TABLES REQUIRED')
493 (SKIP,COL(1),A);
494 PUT SKIP(4);
495 IF BCON & (OPT=1 | (OPT=2 & FB) | (OPT=2 & REQUEST='*')) THEN
496 DO; CALL CON(FILN2);
497 BCON='0'B;
498 END;
499 IF REQUEST='*' THEN GOTO L00;
500 /*-----*/
501 L12:OPEN FILE(STUDENT) INPUT TITLE(FILN1);
502 ON ENDFILE(STUDENT)
503 BEGIN; DT=DATE;
504 DT=SUBSTR(DT,4,2) || '/' || SUBSTR(DT,1,2) || '/' ||
505 SUBSTR(DT,7,2);
506 IF OPT=1 | OPT=2 THEN
507 DO; IF OPT=1 THEN PUT EDIT('F','FILE.....REDE COLLEGE',
508 'GENERAL FREQUENCIES')(SKIP(2),COL(1),A(4),X(1),A,A);
509 IF OPT=2 THEN PUT EDIT('FREQUENCY COUNT FOR REQUEST',
510 REQUEST)(SKIP(2),COL(1),A,X(2),A);
511 PUT EDIT(KT,'STUDENTS INCLUDED')
512 (SKIP(3),COL(1),F(4),X(1),A);
513 IF KT=0 THEN GOTO L29;
514 IF SUPP THEN CALL SPNT;
515 IF OPT=2 & FB THEN GOTO L29;
516 PUT EDIT('FREQUENCY TABLE KEYS')
517 (PAGE,COL(1),A);
518 CALL RFREQ;
519 PUT EDIT('FREQUENCIES','(TOTALS PERCENTAGES)')
520 (PAGE,COL(1),A,X(2),A);
521 CALL RECFPNT;
522 END;
523 L29: PUT EDIT('DATE OF LISTING',DT)(SKIP(2),COL(1),A,X(1),A);
524 CLOSE FILE(STUDENT);
525 GOTO L39;
526 END;
527 DESL=''; KT=0; SUPP='0'B;
528 IF OPT=1 THEN
529 DO; AGF=0; SXF=0; POF=0; RLF=0; SOF=0; MAF=0; RGF=0; STF=0;
530 FPF=0; OVF=0; SCF=0; DAF=0; ORF=0; OPOCF=0; CSOCF=0;
531 END; ELSE
532 IF OPT=2 THEN
533 DO; LOP=''; CLAB=0; PLAB=0; RITEM=''; K=0;
534 IF SUBSTR(REQUEST,2,1)=' ' THEN
535 CALL TRANS(REQUEST,LOP,CLAB,PLAB,RITEM,K);

```

```

/* INPUT OPTION PARAMETERS
/* VERIFY OPTICN PARAMETERS
/* PARAMETER WRL
/*
/*
/*
/* PARAMETER FREQ
/* OUTPUT TITLES
/*
/* OUTPUT OPTICN PARAMETERS IN EFFECT
/* -> WRL
/* -> WCR
/*
/* -> FREQ
/*
/* TEST FOR PROCEDURE CON
/* -> CALL CCN (INPUT OF DATA CONSTANTS)
/* -> SET CON BIT
/*
/* BRANCH IF SPECIAL CASE 'REQUEST='*'*
/*-----*/
/* OPTIONS 1 AND 2
/* SET ENDFILE (STUDENT) ROUTINE
/* -> CALCULATE DATE
/*
/*
/* -> OPTIONS 1 AND 2
/* -> OUTPUT TITLES FOR OPTION 1
/*
/* -> OUTPUT TITLES FOR OPTION 2
/*
/* -> OUTPUT SAMPLE SIZE 'KT'
/*
/* -> BRANCH IF KT=0
/* -> TEST SUPPRESSION BIT, OUTPUT DES.NOS.
/* -> BRANCH IF FREQUENCY TABLES NOT REQUIRED
/* -> OUTPUT FREQUENCY KEYS TITLE
/*
/*
/* -> OUTPUT FREQUENCY KEYS
/* -> OUTPUT FREQUENCY TABLES TITLE
/*
/* -> OUTPUT FREQUENCY TABLES
/*
/* -> OUTPUT DATE OF LISTING
/* -> CLOSE FILE
/* -> BRANCH TO PROGRAMME CCNTRL SECTION
/* END OF ENDFILE ROUTINE
/* INITIALISE VARIABLES ALL OPTIONS
/* INITIALISE VARIABLES OPTION 1
/*
/*
/* INITIALISE VARIABLES OPTION 2
/*
/* TEST FOR REQUEST
/* TRANSLATE REQUEST
/*

```

```

536 IF K=0 THEN
537 DO; CLOSE FILE(STUDENT);
538 GOTO L39;
539 END;
540 IF FB THEN
541 DO; AGF=0; SXF=0; PCF=0; RLF=0; SOF=0; MAF=0; RGF=0; STF=0;
542 FPF=0; OVF=0; SCF=0; OAF=0; ORF=0; OPCCF=0; CSCCF=0;
543 END;
544
545 L21: READ FILE(STUDENT) SET(PTR);
546 IF ~WB & SUBSTR(TTFT(2,1),1,4)='WITH' THEN
547 DO; IF WPB THEN
548 WD=SUBSTR(TTFT(1,2),1,2) || '/' || SUBSTR(TTFT(1,2),
549 3,2) || '/' || SUBSTR(TTFT(1,2),5,2);
550 PUT EDIT(DESNO,'WITHDREW ON',WD)(COL(1),A,2(X(1),A));
551 END;
552 GOTO L21;
553 END; ELSE
554 IF ~LB & SUBSTR(TTFT(2,1),1,4)='LEFT' THEN
555 DO; IF LPB THEN
556 WD=SUBSTR(TTFT(1,2),1,2) || '/' || SUBSTR(TTFT(1,2),
557 3,2) || '/' || SUBSTR(TTFT(1,2),5,2);
558 PUT EDIT(DESNO,'LEFT ON',WD)(COL(1),A,2(X(1),A));
559 END;
560 GOTO L21;
561 END; ELSE
562 IF ~RB & SUBSTR(TTFT(2,1),1,4)=' ' THEN
563 DO; IF RPB THEN PUT EDIT(DESNO,'AT COLLEGE')(COL(1),A,X(1),A);
564 GOTO L21;
565 END; ELSE
566 IF WB & WCR='*' & WCR=SUBSTR(TTFT(2,1),6,1) THEN GOTO L21;
567 IF OPT=1 THEN
568 DO; KT=KT+1;
569 IF KT>1000 THEN SUPP='1'B;
570 IF ~SUPP THEN DESL(KT)=DESNO;
571 CALL RECFREQ;
572 END; ELSE
573 IF OPT=2 THEN
574 DO; IF LOCIST(LPB,CLAB,RLAB,RITEM,K) THEN
575 DO; KT=KT+1;
576 IF KT>1000 THEN SUPP='1'B;
577 IF ~SUPP THEN DESL(KT)=DESNO;
578 IF FB THEN
579 CALL RECFREQ;
580 END;
581 END;
582 GOTO L21;
583
584 /-----*/
585 L00: OPEN FILE(STUDENT) INPUT TITLE(FILN1);
586 ON ENDFILE(STUDENT)
587 BEGIN; CLOSE FILE(STUDENT);
588 OPEN FILE(STUDENT) INPUT TITLE(FILN1);
589 GOTO L01;
590 END;
591 AGF=0; SXF=0; PCF=0; RLF=0; SOF=0; MAF=0; RGF=0; STF=0;
592 FPF=0; OVF=0; SCF=0; OAF=0; ORF=0; OPCCF=0; OSOCF=0;
593 DESL=' '; KT=0; SUPP='0'B;
594 LC2: GET EDIT(DESNO2)(COL(1),A(8));
595 IF DESNO2='*****' THEN
DO; PUT EDIT(YE,'FILE.....BEDE COLLEGE GENERAL FREQUENCIES',

```

```

/* TEST NC. CF SIMPLE REQUESTS, IF 0 THEN
/* -> CLOSE FILE
/* -> BRANCH TC PROGRAMME CONTROL SECTION
/*
/* TEST FOR FREQUENCY TABLES
/* -> INITIALISE VARIABLES
/*
/*
/* READ FIRST/NEXT RECORD
/* -> TEST FOR WITHDRAWAL
/*
/* -> CALCULATE WITHDRAWAL DATE
/*
/* -> CLASS M ERROR/WARNING
/*
/* -> BRANCH FOR NEXT RECORD
/*
/* -> TEST FOR LEFT
/*
/* -> CALCULATE LEAVING DATE
/*
/* -> CLASS M ERROR/WARNING
/*
/* -> BRANCH FOR NEXT RECORD
/*
/* -> TEST FOR STUDENT AT COLLEGE
/* -> CLASS M ERROR/WARNING
/*
/* -> BRANCH FOR NEXT RECORD
/*
/* -> TEST WITHDRAWAL CODE
/*
/* OPTION 1
/* -> UPDATE COUNTER
/* -> TEST COUNTER AND SET SUPPRESSION BIT
/* -> ASSIGN DES.NO TO LIST
/* -> ACCUMULATE FREQUENCIES
/*
/* OPTION 2
/* -> TEST REQUEST
/* -> UPDATE COUNTER
/* -> TEST COUNTER AND SET SUPPRESSION BIT
/* -> ASSIGN DES.NO TO LIST
/* -> TEST FOR FREQUENCY TABLES
/* -> ACCUMULATE FREQUENCIES
/*
/*
/* BRANCH FOR NEXT RECORD
/*
/* OPTION 2, SPECIAL CASE 'REQUEST='*'
/* SET ENDFILE (STUDENT) ROUTINE
/* -> CLOSE FILE
/* -> OPEN FILE
/* -> BRANCH FOR FIRST RECORD
/* END ENDFILE ROUTINE
/* INITIALISE VARIABLES
/*
/* INPUT REQUIRED DES.NO.
/* TEST FOR INPUT TERMINATOR
/* OUTPUT ROUTINE, TITLES

```

[illegible]

```
656 DO I=1 TO 26;
657 GET FILE(CONST) LIST(AK(1,1));
658 END;
659 AK(2,1)=1; AK(3,1)=AK(2,1)+AK(1,1)-1;
660 DO I=2 TO 26;
661 AK(2,I)=AK(3,I-1)+1;
662 AK(3,I)=AK(1,I)+AK(2,I)-1;
663 END;
664 N=SUM(AK(1,*));
665 ALLOCATE AUTR(N),AUTR1(N);
666 DO K=1 TO 26;
667 DO I=AK(2,K) TO AK(3,K);
668 GET FILE(CONST) EDIT(AUTR(I),AUTR1(I))
669 (COL(1),A(19),COL(40),A(3));
670 END;
671 END;
672 GET FILE(CONST) EDIT((OAK(K) DC K=1 TO 4))((4(COL(1),A(40)))));
673 GET FILE(CONST) EDIT((OPK(K) DN K=1 TO 6))((6(COL(1),A(30)))));
674 GET FILE(CONST) EDIT((OPSOK(K) DC K=1 TO 6))((6(COL(1),A(40)))));
675 GET FILE(CONST) EDIT((SCK(I) DO I=1 TO 9))((9(COL(1),A(50)))));
676 GET FILE(CONST) EDIT((PSOK(I) DO I=1 TO 5))((5(COL(1),A(65)))));
677 GET FILE(CONST) EDIT((STK(I) DC I=1 TO 6))((6(COL(1),A(50)))));
678 GET FILE(CONST) EDIT((MK(I) DO I=1 TO 3))((3(COL(1),A(12)))));
679 GET FILE(CONST) EDIT((OK(I) DO I=1 TO 10))((10(COL(1),A(35)))));
680 GET FILE(CONST) EDIT((RK(I) DO I=1 TO 5))((5(COL(1),A(30)))));
681 GET FILE(CONST) EDIT((GPK(I) DO I=1 TO 11))((11(COL(1),A(30)))));
682 GET FILE(CONST) EDIT(ALPHA)(COL(1),A(26));
683 GRC=SUBSTR(ALPHA,1,11);
684 GET FILE(CONST) EDIT(NALC)(COL(1),F(3));
685 ALLOCATE ATAB(NALC),ATAB1(NALC);
686 GET FILE(CONST) SKIP;
687 GET FILE(CONST) EDIT((ATAB(I),ATAB1(I) DO I=1 TC NALC))
688 (X(2),A(3),X(1),F(2));
689 DO I=1 TO 2;
690 DO J=1 TO 16;
691 GET FILE(CONST) LIST((NORM(I,J,K) DO K=1 TO 10));
692 GET FILE(CONST) LIST((NORM2(I,J,K) DO K=1 TO 2));
693 END;
694 END;
695 CLOSE FILE(CONST);
696 END;
```

```
/*
/* INPUT AUTHORITY/COUNTRY NUMBERS
/*
/* -> CALCULATE AK KEYS
/*
/* -> START POSITIONS
/* -> LAST POSITIONS
/*
/* -> CALCULATE STORAGE REQUIRED
/* -> ALLOCATE STORAGE
/*
/* -> INPUT AUTHORITY/COUNTRY & CODES
/*
/*
/* INPUT AREA CODES (PRE 1972)
/* INPUT RELIGION CODES (PRE 1972)
/* INPUT PARENT/STUDENT OCC.CODES (PRE 1972)
/* INPUT SCHOOL CODES
/* INPUT PARENT/STUDENT OCC. CODES
/* INPUT SETTLEMENT CODES
/* INPUT MARITAL STATUS CODES
/* INPUT OVER 25 OCC. CODES
/* INPUT RELIGION CODES
/* INPUT REGION CODES
/* INPUT ALPHABET
/* GEOGRAPHICAL REGION KEYS
/* INPUT A*LEVEL NUMRER
/* -> ALLOCATE STORAGE
/*
/* -> INPUT A*LEVEL CODES & COLUMNS
/*
/*
/* INPUT NORM TABLES
/*
/*
/* CLOSE CONST
/* END PROCEDURE CON
/*
```

4. PROGRAM F.

4.3 COMPILER LISTING

THIS SECTION CONTAINS A LISTING OF THE OUTPUT PROVIDED BY THE PL/I F COMPILER DURING THE COMPILATION OF PROGRAM F.

THE JCL WAS AS FOLLOWS:

```
$RUN *PLI SPUNCH=-F
-----
| PROGRAM F SOURCE DECK |
|-----|
%PROCESS;
|-----|
| PROCEDURE CON SOURCE DECK |
|-----|
$ENDFILE
```

THE COMPLETE LIST OF OPTIONS USED DURING THIS COMPILATION IS--

EBCDIC
CHAR60
NOMACRO
SOURCE2
NOMACDCK
COMP
SOURCE
ATR
XREF
NCEXTREF
NOLIST
NOLOAD
DECK
FLAGW
STMT
SIZE=010P
LINECNT=060
OPT=01
SORMGIN=(001,072)
NEST
OPLIST

OPTIONS IN EFFECT
EBCDIC,CHAR60,NOMACRO,SOURCE2,NOMACDCK,COMP,SOURCE,ATR,XREF,NCEXTREF,NOLIST,NOLOAD,
OPTIONS IN EFFECT
DECK,FLAGW,STMT,SIZE=010P,LINECNT=060,OPT=01,SORMGIN=(001,072),
OPTIONS IN EFFECT
NEST,OPLIST

STMT LEVEL NEST

1	1	(SUBPG):(STRG):	F0000010
		F:PROCEDURE OPTIONS(MAIN);	F0000020
2	1	DCL 1 RECGRD BASED(PTR),	F0000030
		2 (DESN0 CHAR(8), NAME CHAR(40)),	F0000040
		2 GENERAL,	F0000050
		3 (PNAME CHAR(17), (TITLE,YC) CHAR(2), (SEX,REG) CHAR(1)),	F0000060
		3 ((DOB,C,MART,SET,POCC,SOC,C,OV25,REL,CNFC) CHAR(1)),	F0000070
		3 ((DOB,TFT(2,2)) CHAR(6),AUTH CHAR(19),AUTHNO CHAR(1)),	F0000080
		3 FPOS CHAR(4),	F0000090
		2 EDUCATION,	F0000100
		3 (SCHNO CHAR(2), SCH(10) CHAR(5)),	F0000110
		3 (QUALNO CHAR(2), QUAL(30) CHAR(10)),	F0000120
		3 (UNCOL(2) CHAR(21), FPT(2) CHAR(1)),	F0000130
		3 (UNOTH(2) CHAR(21), DEG(2) CHAR(3), HPCD(2) CHAR(4)),	F0000140
		3 (SUB(2) CHAR(36), DAT(2) CHAR(6)),	F0000150
		3 (ADIP CHAR(30), ADIPC CHAR(1)),	F0000160
		3 DDIPC CHAR(1),	F0000170
		3 (OQ(2) CHAR(30), OQC(2) CHAR(4)),	F0000180
		3 ATO CHAR(1),	F0000190
		2 COURSE,	F0000200
		3 (LEN CHAR(1), CODES(4) CHAR(3)),	F0000210
		3 ((LE,DC(4,24:64)) CHAR(1)),	F0000220
		3 (DC1(4,26:30) CHAR(2)),	F0000230
		3 ((DC46(4),DC49(4)) CHAR(3)),	F0000240
		2 FINALS,	F0000250
		3 ((TC,WS,BE,SUBCAR) CHAR(1)),	F0000260
		2 ANNPRDG,	F0000270
		3 AP CHAR(802),	F0000280
		3 ((LFAP,FK(100,2)) FIXED BINARY),	F0000290
		2 INTEL,	F0000300
		3 (INTELB CHAR(2),(VALUES(2,6), DSCALE(2)) FIXED BINARY),	F0000310
		3 ((AH4(2,3),PF16(2,16)) FIXED BINARY),	F0000320
		3 STEN(2,16) FIXED BINARY;	F0000330
		/*-----*/	F0000340
3	1	DCL (AGF(3),SXF(2),(POF,RLF)(5),SOF(6),MAF(3),RGF(11),STF(6),	F0000350
		FPF(10,10),OVF(0:10),SCF(0:9)) FIXED BIN;	F0000360
4	1	DCL (SCK(9) CHAR(60), PSOK(5) CHAR(65), STK(6) CHAR(50),	F0000370
		MK(3) CHAR(12), OK(10) CHAR(35), RK(5) CHAR(30), GRC CHAR(11),	F0000380
		GRK(11) CHAR(30)) VARYING EXTERNAL;	F0000390
		DCL (OAK(4) CHAR(40), ORK(6) CHAR(30)) VARYING EXTERNAL;	F0000400
		DCL (OAF(4),ORF(6)) FIXED BINARY;	F0000410
		DCL OPSOK(6) CHAR(40) VARYING EXTERNAL;	F0000420
		DCL (OPOCF(6),OSOCF(7)) FIXED BINARY;	F0000430
		DCL (CLAB,RLAB)(20) FIXED BINARY,RITEM(20) CHAR(20)	F0000440
		VARYING, LOP(20) CHAR(1);	F0000450
		DCL (FILN1,FILN2,WD,DT,DESL(1000)) CHAR(8), YE CHAR(4), WRL	F0000460
		CHAR(3), (WCR,FREQ) CHAR(1), (WB,RB,LB,FB) BIT(1),(KT,OPT,K) FIXED	F0000470
		BINARY, REQUEST CHAR(400) VARYING, BCON BIT(1) INITIAL('1'B),	F0000480
		(DESN02,DESN03) CHAR(8), (SUPP,WPB,LPB,RPB,B) BIT(1);	F0000490
		DCL CON ENTRY(CHAR(8));	F0000500
		/*-----*/	F0000510
		DCL STUDENT FILE RECORD ENV(F(2416));	F0000520
		/*-----*/	F0000530
		TRANS:PROC(REQUEST,LOP,CLAB,RLAB,RITEM,K);	F0000540
		DCL (CLAB,RLAB)(20) FIXED BINARY,RITEM(20) CHAR(20)	F0000550
			F0000560

STMT LEVEL NEST

15	2		VARYING, LOP(20) CHAR(1);	F0000570
16	2		DCL REQUEST CHAR(400) VARYING;	F0000580
17	2		DCL PCOND(6) CHAR(2) VARYING INITIAL(' ','>', '<', '<');	F0000590
18	2		DCL X1 CHAR(1),LR CHAR(3),(I,J,K,LK,LL,LB,NB) FIXED BINARY;	F0000600
19	2		LL=LENGTH(REQUEST);	F0000610
21	2		K=0; LK=1;	F0000620
22	2	1	DO I=1 TO LL;	F0000630
23	2	1	X1=SUBSTR(REQUEST,I,1);	F0000640
24	2	1	IF X1=' ', THEN	F0000650
26	2	2	DO; LR=I;	F0000660
27	2	2	GOTO L61;	F0000670
28	2	1	END; ELSE	F0000680
29	2	1	IF X1='<' X1=' ' THEN	F0000690
31	2	2	DO; LK=LK+1;	F0000700
32	2	2	LOP(LK)=X1;	F0000710
33	2	2	GOTO L61;	F0000720
34	2	1	END; ELSE	F0000730
35	2	2	DO J=1,3,5;	F0000740
37	2	2	IF X1=PCOND(J) THEN GOTO L62;	F0000750
38	2	1	END;	F0000760
39	2	1	GOTO L61;	F0000770
40	2	1	NB=INDEX(SUBSTR(REQUEST,I),' ');	F0000780
41	2	1	IF SUBSTR(REQUEST,I-1,1)='-', THEN	F0000790
43	2	2	DO; K=K+1;	F0000800
44	2	2	CLAB(K)=J+1;	F0000810
45	2	2	LR=SUBSTR(REQUEST,LB+1,I-LB-2);	F0000820
46	2	2	RLAB(K)=LR;	/* CONVERSION */F0000830
47	2	1	END; ELSE	F0000840
49	2	2	DO; K=K+1;	F0000850
50	2	2	CLAB(K)=J;	F0000860
51	2	2	LR=SUBSTR(REQUEST,LB+1,I-LB-1);	F0000870
52	2	2	RLAB(K)=LR;	/* CONVERSION */F0000880
53	2	1	END;	F0000890
54	2	1	RITEM(K)=SUBSTR(REQUEST,I+1,NB-2);	F0000900
55	2	1	I=I+NB-1;	F0000910
56	2	1	L61: END;	F0000920
57	2	1	DO I=1 TO K;	F0000930
58	2	1	IF RLAB(I)<1 RLAB(I)>40 THEN	F0000940
60	2	2	DO; PUT EDIT('ERROR.....ITEM',RLAB(I),'NOT INCLUDED')	F0000950
61	2	3	(SKIP,COL(1),A,X(1),F(2),X(1),A);	F0000960
62	2	3	DO J=1 TO K-1;	F0000970
63	2	3	LOP(J)=LOP(J+1);	F0000980
64	2	3	RLAB(J)=RLAB(J+1);	F0000990
65	2	3	CLAB(J)=CLAB(J+1);	F0001000
66	2	3	RITEM(J)=RITEM(J+1);	F0001010
67	2	3	K=K-1;	F0001020
68	2	2	END;	F0001030
69	2	1	END;	F0001040
70	1		END;	F0001050
71	2		/****** LOCTST:PROC(LOP,CLAB,RLAB,RITEM,K) RETURNS(BIT(1)); DCL LOP(20) CHAR(1),(CLAB,RLAB)(20) FIXED BINARY, RITEM(20) CHAR(20) VARYING; *****	F0001060 F0001070 F0001080 F0001090 F0001100

STMT LEVEL NEST

72	2	DCL REQ1 CHAR(12), (PEQM,ITEM) CHAR(20) VARYING, (K,I,J,QS)	FC001110
		FIXED BINARY;	F0001120
73	2	*****	F0001130
74	3	FIND:PROCEDURE(ITEM,LR,REQ1);	FC001140
		DCL (ITEM CHAR(20), XVAR CHAR(3)) VARYING, (LR,KC,I,J) FIXED	F0001150
		BINARY, X2 CHAR(2), R(4C) LABEL, REQ1 CHAR(12), ST CHAR(1) DEFINED	F0001160
		REQ1 POS(2), SYF CHAR(2) DEFINED REQ1 POS(3), SYT CHAR(2) DEFINED	F0001170
		REQ1 POS(5), QY CHAR(2) DEFINED REQ1 POS(2), QE CHAR(3) DEFINED	F0001180
		REQ1 POS(4), QC CHAR(3) DEFINED REQ1 POS(7), QG CHAR(1) DEFINED	F0001190
		REQ1 POS(10), QR CHAR(1) DEFINED REQ1 POS(11);	FC001200
		IF QE='*****' THEN QE=TRANSLATE(QE,' ','*');	F0001210
		IF LR>=26 & LR<=35 THEN I=LE;	/* CONVERSION */F0001220
		GOTO R(LR);	F0001230
		R(1):X2=SUBSTR(TTFT(1,1),5,2); I=X2;	/* CONVERSION */F0001240
		X2=SUBSTR(DDB,5,2); J=X2;	/* CONVERSION */F0001250
		KC=I-J;	FC001260
		GOTO L1;	F0001270
		R(2):ITEM=SEX; RETURN; R(3):ITEM=MART; RETURN;	F0001280
		R(4):ITEM=SET; RETURN; R(5):ITEM=REG; RETURN;	F0001290
		R(6):ITEM=POCC; RETURN; R(7):ITEM=SOCC; RETURN;	F0001300
		R(8):ITEM=OV25; RETURN; R(9):ITEM=RFL; RETURN;	F0001310
		R(10):ITEM=CONF; RETURN; R(11):ITEM=AUTH; RETURN;	F0001320
		R(12):ITEM=AUTHNO; RETURN; R(13):ITEM=FPOS; RETURN;	F0001330
		R(14):ITEM=TTFT(1,1); RETURN; R(15):ITEM=UNCOL(1); RETURN;	F0001340
		R(16):ITEM=UNOTH(1); RETURN; R(17):ITEM=DEG(1); RETURN;	F0001350
		R(18):ITEM=SCHNO; RETURN;	F0001360
		R(19):KC=C; QS=SCHNO;	/* CONVERSION */F0001370
		DO I=1 TO QS;	FC001380
		IF ST='*' SUBSTR(SCH(I),1,1)=ST THEN	F0001390
		IF SYF='*' SUBSTR(SCH(I),2,2)=SYF THEN	F0001400
		IF SYT='*' SUBSTR(SCH(I),4,2)=SYT THEN KC=KC+1;	F0001410
		END;	F0001420
		GOTO L1;	F0001430
		R(20):ITEM=QUALNO; RETURN;	F0001440
		R(21):KC=Q; QS=QUALNO;	/* CONVERSION */F0001450
		DO I=1 TO QS;	F0001460
		IF QY='*' SUBSTR(QUAL(I),1,2)=QY THEN	F0001470
		IF QE='*' SUBSTR(QUAL(I),3,3)=QE THEN	F0001480
		IF QC='*' SUBSTR(QUAL(I),6,3)=QC THEN	F0001490
		IF QG='*' SUBSTR(QUAL(I),9,1)=QG THEN	F0001500
		IF QR='*' SUBSTR(QUAL(I),10,1)=QR THEN KC=KC+1;	F0001510
		END;	F0001520
		GOTO L1;	F0001530
		R(22):ITEM=ATO; RETURN; R(23):ITEM=LEN; RETURN;	F0001540
		R(24):I=ST;	/* CONVERSION */F0001550
		ITEM=CODES(I); RETURN; R(25):ITEM=DC46(1); RETURN;	F0001560
		R(26):ITEM=DC(I,25); RETURN; R(27):ITEM=DC(I,34); RETURN;	F0001570
		R(28):ITEM=DC(I,35); RETURN; R(29):ITEM=DC(I,36); RETURN;	F0001580
		R(30):ITEM=DC(I,37); RETURN; R(31):ITEM=DC(I,38); RETURN;	F0001590
		R(32):ITEM=DC(I,41); RETURN; R(33):ITEM=DC(I,42); RETURN;	F0001600
		R(34):ITEM=DC(I,59); RETURN; R(35):ITEM=DC(I,64); RETURN;	F0001610
		R(36):XVAR=SUBSTR(REQ1,5,INDEX(REQ1,'')-5);	F0001620
		I=XVAR;	/* CONVERSION */F0001630
		IF FK(I,1)=Q THEN ITEM=SUBSTR(AP,FK(I,1),FK(I,2)-1); ELSE	F0001640
173	3		

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STMT LEVEL NEST

175 3 ITEM=''; RETURN; F0001650
177 3 R(37):ITEM=TC; RETURN; F0001660
179 3 R(38):ITEM=WS; RETURN; F0001670
181 3 R(39):ITEM=RE; RETURN; F0001680
183 3 R(40):ITEM=SUBCAR; RETURN; F0001690
185 3 ITEM=CHAR(KC); F0001700
186 3 END; F0001710
      /***** F0001720
187 2 TEST:PROC(ITEM,COND,REQU) RETURNS(RIT(1)); F0001730
188 3 DCL (ITEM,REQU,X20) CHAR(20) VARYING, COND FIXED BINARY; F0001740
189 3 DCL C(6) LABEL INITIAL(C1,C2,C3,C4,C5,C6); F0001750
190 3 X20=ITEM; ITEM=((20)' '); SUBSTR(ITEM,21-LENGTH(X20))=X20; F0001760
193 3 X20=REQU; REQU=((20)' '); SUBSTR(REQU,21-LENGTH(X20))=X20; F0001770
196 3 GOTO C(COND); F0001780
197 3 C1: IF ITEM=REQU THEN RETURN('1'B); ELSE RETURN('0'B); F0001790
200 3 C2: IF ITEM=REQU THEN RETURN('1'B); ELSE RETURN('0'B); F0001800
203 3 C3: IF ITEM>REQU THEN RETURN('1'B); ELSE RETURN('0'B); F0001810
206 3 C4: IF ITEM->REQU THEN RETURN('1'B); ELSE RETURN('0'B); F0001820
209 3 C5: IF ITEM<REQU THEN RETURN('1'B); ELSE RETURN('0'B); F0001830
212 3 C6: IF ITEM<REQU THEN RETURN('1'B); ELSE RETURN('0'B); F0001840
215 3 END; F0001850
216 2 DCL TEST ENTRY(,) RETURNS(BIT(1)); F0001860
      /***** F0001870
217 2 DO I=1 TO K; F0001880
218 2 IF RLAB(I)=4 | RLAB(I)=5 | RLAB(I)=7 | RLAB(I)=9 | RLAB(I)=19 F0001890
      | RLAB(I)=21 | RLAB(I)=24 | RLAB(I)=36 | RLAB(I)=40 THEN F0001900
      REQI=SUBSTR(RITEM(I),INDEX(RITEM(I),'(')); F0001910
219 2 IF RLAB(I)=4 | RLAB(I)=6 | RLAB(I)=7 | RLAB(I)=9 | RLAB(I)=36 F0001920
220 2 | RLAB(I)=40 THEN IF SUBSTR(REQI,2,2)=SUBSTR(TFT(1,1),5,2) F0001930
221 2 THEN IF I+1<K & LOP(I+1)='1' THEN GOTO L66; ELSE RETURN('0'B); F0001940
222 2 CALL FIND(ITEM,RLAB(I),REQI); F0001950
225 2 IF RLAB(I)=4 | RLAB(I)=6 | RLAB(I)=7 | RLAB(I)=9 | RLAB(I)=19 F0001960
226 2 | RLAB(I)=21 | RLAB(I)=24 | RLAB(I)=36 | RLAB(I)=40 THEN F0001970
      REQM=SUBSTR(RITEM(I),1,INDEX(RITEM(I),'(')-1); ELSE F0001980
      REQM=TRANSLATE(RITEM(I),' ',''); F0001990
227 2 IF TEST(ITEM,CLAB(I),REQM) THEN F0002000
228 2 DO; DO J=I+1 TO K; F0002010
229 2 IF LOP(J)='1' THEN F0002020
230 2 DO; I=J-1; F0002030
231 2 GOTO L66; F0002040
232 2 END; F0002050
233 2 RETURN('1'B); F0002060
235 2 END; F0002070
236 2 IF I+1<K & LOP(I+1)='1' THEN GOTO L66; ELSE RETURN('0'B); F0002080
237 2 END; ELSE F0002090
238 2 RETURN('1'B); F0002100
239 2 L66: END; F0002110
240 2 END; F0002120
243 2 DCL LOCTST ENTRY(,,) RETURNS(BIT(1)); F0002130
244 2 /***** F0002140
245 2 SPNT:PROC; F0002150
      DCL I FIXED BINARY; F0002160
      PUT SKIP(3); F0002170
246 1 DO I=1 TO KT; F0002180
247 2 IF MOD(I-1,10)=0 THEN PUT SKIP;
248 2
249 2
250 1
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STMT	LEVEL	NEST	Code
252	2	1	PUT FEDIT(DESL(I))(X(3),A(8));
253	2	1	END;
254	2		END;
255	1		***** RREFOK:PROCEDURE;
256	2		DCL K FIXED BINARY;
257	2		PUT EDIT('MARITAL STATUS')(SKIP(3),A);
258	2		PUT SKIP;
259	2		DO K=1 TO 3;
260	2	1	PUT EDIT(K,MK(K))(SKIP,F(1),COL(8),A);
261	2	1	END;
262	2		PUT EDIT('GEOGRAPHICAL REGION','NOT CODEC PRIOR TO 1972')
263	2		(SKIP(3),A,COL(80),A);
264	2		PUT SKIP;
265	2	1	DO K=1 TO 11;
266	2	1	PUT EDIT(SUBSTR(GRC,K,1),GRK(K))(SKIP,A(1),COL(8),A);
267	2		END;
268	2		PUT EDIT('SETTLEMENT','SETTLEMENT PRIOR TO 1972')
269	2		(SKIP(3),A,COL(80),A);
270	2	1	PUT SKIP;
271	2	1	DO K=1 TO 4;
272	2	1	PUT EDIT(K,STK(K),K,DAK(K))(SKIP,F(1),COL(8),A,COL(80),F(1),
273	2		COL(87),A);
274	2		END;
275	2		PUT EDIT('5',STK(5),'6',STK(6))(2(SKIP,A(1),COL(8),A));
276	2	1	PUT EDIT('OCCUPATION IF OVER 25')(SKIP(3),A);
277	2	1	PUT EDIT('O',OK(10))(SKIP(2),A(1),COL(8),A);
278	2		DO K=1 TO 9;
			PUT EDIT(K,OK(K))(SKIP,F(1),COL(8),A);
			END;
279	2		PUT EDIT('STUDENT/PARENT/GUARDIAN OCCUPATION',
280	2		'STUDENT/PARENT/GUARDIAN OCCUPATION PRIOR TO 1972')
281	2	1	(PAGE,SKIP(3),A,COL(80),A);
282	2	1	PUT SKIP;
283	2		DO K=1 TO 5;
284	2		PUT EDIT(K,PSOK(K),K,OPSOK(K))(SKIP,F(1),COL(8),A,COL(80),F(1),
			COL(87),A);
285	2		END;
286	2		PUT EDIT('6',OPSOK(K))(SKIP,COL(80),A,COL(87),A);
287	2	1	PUT EDIT('RELIGION','RELIGION PRIOR TO 1972')
			(SKIP(3),A,COL(80),A);
288	2	1	PUT SKIP;
289	2		DO K=1 TO 5;
290	2		PUT EDIT(K,RK(K),K,ORK(K))(SKIP,F(1),COL(8),A,COL(80),F(1),
291	2		COL(87),A);
292	2		END;
293	2	1	PUT EDIT('6',ORK(6))(SKIP,COL(80),A,COL(87),A);
294	2	1	PUT EDIT('SCHOOL TYPE')(SKIP(3),A);
295	2		PUT SKIP;
			DO K=1 TO 9;
			PUT EDIT(K,SCK(K))(SKIP,F(1),COL(8),A);
			END;
			***** /F0002720

STMT LEVEL NEST

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296 1 RECPRQ:PPNC; F0002730
297 2 DCL X2 CHAR(2), X1 CHAR(1), OKB BIT(1), (I,J,K) FIXED BINARY; F0002740
298 2 X2=SUBSTR(TTFT(1,1),5,2); I=X2; /* CONVERSION */F0002750
300 2 IF I<72 THEN OKB='1'B; ELSE OKB='0'B; F0002760
303 2 X2=SUBSTR(DOB,5,2); /* CONVERSION */F0002770
304 2 J=X2; F0002780
305 2 IF I>J THEN F0002790
306 2 DO; IF I-J=25 THEN AGF(1)=AGF(1)+1; ELSE AGF(2)=AGF(2)+1; F0002800
310 2 AGF(3)=AGF(3)+I-J; F0002810
311 2 END; ELSE F0002820
312 2 PUT EDIT(DESNO,'ERROR RETURNED....AGE')(SKIP,A(8),X(2),A); F0002830
313 2 IF SEX='M' THEN SXF(1)=SXF(1)+1; ELSE F0002840
315 2 IF SEX='F' THEN SXF(2)=SXF(2)+1; ELSE F0002850
317 2 PUT EDIT(DESNO,'ERROR RETURNED....SEX')(SKIP,A(8),X(2),A); F0002860
318 2 IF MART='1' & MART<='3' THEN F0002870
319 2 DO; I=MART; /* CONVERSION */F0002880
321 2 MAF(1)=MAF(1)+1; F0002890
322 2 END; ELSE F0002900
323 2 PUT EDIT(DESNO,'ERROR RETURNED....MARITAL STATUS') F0002910
324 2 (SKIP,A(8),X(2),A); F0002920
325 2 IF REL='1' & REL<='5' & ~OKB THEN F0002930
327 2 DO; I=REL; /* CONVERSION */F0002940
328 2 RLF(1)=RLF(1)+1; F0002950
329 2 END; ELSE F0002960
330 2 IF REL='1' & REL<='6' & OKB THEN F0002970
332 2 DO; I=REL; /* CONVERSION */F0002980
333 2 ORF(1)=ORF(1)+1; F0002990
334 2 END; ELSE F0003000
335 2 PUT EDIT(DESNO,'ERROR RETURNED....RELIGION')(SKIP,A(8),X(2),A); F0003010
336 2 IF SET='1' & SET<='6' & ~OKB THEN F0003020
338 2 DO; I=SET; /* CONVERSION */F0003030
339 2 STF(1)=STF(1)+1; F0003040
340 2 END; ELSE F0003050
341 2 IF SET='1' & SET<='4' & OKB THEN F0003060
343 2 DO; I=SET; /* CONVERSION */F0003070
344 2 OAF(1)=OAF(1)+1; F0003080
345 2 END; ELSE F0003090
346 2 PUT EDIT(DESNO,'ERROR RETURNED....SETTLEMENT') F0003100
347 2 (SKIP,A(8),X(2),A); F0003110
349 2 IF POCC='1' & POCC<='5' & ~OKB THEN F0003120
350 2 DO; I=POCC; /* CONVERSION */F0003130
351 2 POF(1)=POF(1)+1; F0003140
352 2 END; ELSE F0003150
353 2 IF POCC='1' & POCC<='6' & OKB THEN F0003160
354 2 DO; I=POCC; /* CONVERSION */F0003170
355 2 OPOCF(1)=OPOCF(1)+1; F0003180
356 2 END; ELSE F0003190
357 2 PUT EDIT(DESNO,'ERROR RETURNED....PARENT/GUARDIAN OCCUPATION') F0003200
360 2 (SKIP,A(8),X(2),A); F0003210
361 2 IF SOCC='1' THEN IF ~OKB THEN SOF(6)=SOF(6)+1; ELSE F0003220
362 2 OSOCF(7)=OSOCF(7)+1; ELSE F0003230
363 2 IF SOCC='1' & SOCC<='5' & ~OKB THEN F0003240
364 2 DO; I=SOCC; /* CONVERSION */F0003250
365 2 SOF(1)=SOF(1)+1; F0003260
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STMT LEVEL NEST

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365      2      1      END: ELSE
366      2      DO: I=SNCC;
367      2      OSOCF(I)=OSNCF(I)+1;
369      2      1      /* CONVERSION */FC003290
370      2      1      OSOCF(I)=OSNCF(I)+1;
371      2      1      END: ELSE
372      2      PUT EDIT(DESNO,'ERROR RETURNED....STUDENT OCCUPATION')
373      2      (SKIP,A(8),X(2),A);
374      2      IF OV25=' ' THEN OV25=OV25+1; ELSE
375      2      IF OV25>='0' & OV25<='9' THEN
376      2      DO: I=OV25;
377      2      1      /* CONVERSION */FC003360
378      2      1      OV25=OV25+1;
379      2      1      END: ELSE
380      2      PUT EDIT(DESNO,'ERROR RETURNED....OVER 25 OCCUPATION')
381      2      (SKIP,A(8),X(2),A);
382      2      IF OKB THEN GOTO L3;
383      2      I=INDEX(GRC,REG);
384      2      IF I>=1 & I<=11 THEN RGF(I)=RGF(I)+1; ELSE
385      2      PUT EDIT(DESNO,'ERROR RETURNED....REGION')(SKIP,A(8),X(2),A);
386      2      K=SCHNO;
387      2      DO J=1 TO K;
388      2      1      X1=SUBSTR(SCH(J),1,1);
389      2      1      IF X1>='0' & X1<='9' THEN
390      2      1      DO: I=X1;
391      2      1      SCF(I)=SCF(I)+1;
392      2      1      /* CONVERSION */FC003490
393      2      1      END: ELSE
394      2      1      PUT EDIT(DESNO,'ERROR RETURNED....SCHOOL TYPE')
395      2      1      (SKIP,A(8),X(2),A);
396      2      1      END:
397      2      X2=SUBSTR(FPOS,1,2);
398      2      IF X2=' ' THEN I=100; ELSE I=X2;
399      2      /* CONVERSION */FC003560
400      2      X2=SUBSTR(FPOS,3,2);
401      2      IF X2=' ' THEN J=100; ELSE J=X2;
402      2      /* CONVERSION */FC003580
403      2      IF I>=1 & I<=10 & J>=1 & J<=10 THEN FPF(I,J)=FPF(I,J)+1; ELSE
404      2      PUT EDIT(DESNO,'ERROR RETURNED....FAMILY POSITION',
405      2      '(I,I','/','J,J')(SKIP,A(8),X(2),A,X(2),2(A,P'99'),A);
406      2      /* CONVERSION */FC003610
407      2      END:
408      2      /* CONVERSION */FC003620
409      2      RECFPNT:PROC;
410      2      DCL (J,K) FIXED BINARY;
411      2      PUT EDIT('SEX FREQUENCY')(SKIP(3),A);
412      2      PUT EDIT('MALE',SXF(1),(SXF(1)/KT)*100)(SKIP(2),A,COL(10),F(4),
413      2      COL(16),F(6,2));
414      2      PUT EDIT('FEMALE',SXF(2),(SXF(2)/KT)*100)(SKIP,A,COL(10),F(4),
415      2      COL(16),F(6,2));
416      2      PUT EDIT('AGE FREQUENCY ON ADMISSION','AVERAGE AGE ON ADMISS',
417      2      *ION')(SKIP(3),A,COL(80),A,A);
418      2      PUT EDIT('UNDER 25',AGF(2),(AGF(2)/KT)*100,(AGF(3)/KT))
419      2      (SKIP(2),A,COL(10),F(4),COL(16),F(6,2),COL(80),F(2));
420      2      PUT EDIT('OVER 25',AGF(1),(AGF(1)/KT)*100)(SKIP,A,COL(10),F(4),
421      2      COL(16),F(6,2));
422      2      PUT EDIT('MARITAL STATUS')(SKIP(3),A);
423      2      PUT SKIP;
424      2      DO K=1 TO 3;
425      2      PUT EDIT(K,MAF(K),(MAF(K)/KT)*100)(SKIP,F(1),COL(10),F(4),
426      2      F0003800
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STMT	LEVEL	NEST
420	2	1
421	2	
422	2	
423	2	
424	2	1
425	2	1
426	2	
427	2	
428	2	
429	2	1
430	2	1
431	2	
432	2	1
433	2	1
434	2	
435	2	
436	2	
437	2	1
438	2	1
439	2	
440	2	
441	2	
442	2	
443	2	1
444	2	1
445	2	
446	2	
447	2	
448	2	
449	2	
450	2	1
451	2	1
452	2	

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COL(16),F(6,2));
END;
PUT EDIT('GEOGRAPHICAL REGION','NOT CODED PRIOR TO 1972')
(SKIP(3),A,COL(80),A);
PUT SKIP;
DO K=1 TO 11;
  PUT EDIT(SUBSTR(GRC,K,1),RGF(K),(RGF(K)/KT)*100)(SKIP,A(1),
  COL(10),F(4),COL(16),F(6,2));
END;
PUT EDIT('SETTLEMENT','SETTLEMENT PRIOR TO 1972')
(SKIP(3),A,COL(80),A);
PUT SKIP;
DO K=1 TO 4;
  PUT EDIT(K,STF(K),(STF(K)/KT)*100,K,DAF(K),(DAF(K)/KT)*100)
(SKIP,F(1),COL(10),F(4),COL(16),F(6,2),COL(80),F(1),COL(89),
F(4),COL(94),F(6,2));
END;
DO K=5,6;
  PUT EDIT(K,STF(K),(STF(K)/KT)*100)(SKIP,F(1),COL(10),F(4),
  COL(16),F(6,2));
END;
PUT EDIT('OCCUPATION IF OVER 25')(SKIP(3),A);
PUT SKIP;
DO K=0 TO 9;
  PUT EDIT(K,OVF(K),(OVF(K)/KT)*100)(SKIP,F(1),COL(10),F(4),
  COL(16),F(6,2));
END;
PUT EDIT('UNDER 25',OVF(10),(OVF(10)/KT)*100)(SKIP,A,COL(10),F(4),
COL(16),F(6,2));
PUT EDIT('STUDENT OCCUPATION','PARENT/GUARDIAN OCCUPATION',
'STUDENT OCCUPATION','PARENT/GUARDIAN OCCUPATION','PRIOR TO 1972',
'PRIOR TO 1972')(PAGE,SKIP(2),A,COL(27),A,2(COL(65),A,COL(91),A));
PUT SKIP;
DO K=1 TO 5;
  PUT EDIT(K,SOF(K),(SOF(K)/KT)*100,POF(K),(POF(K)/KT)*100,
  K,OSOCF(K),(OSOCF(K)/KT)*100,OPOCF(K),(OPOCF(K)/KT)*100)
(SKIP,F(1),COL(10),F(4),COL(16),F(6,2),COL(27),F(4),COL(33),
F(6,2),COL(65),F(1),COL(73),F(4),COL(79),F(6,2),COL(91),F(4),
COL(97),F(6,2));
END;
PUT EDIT('6',OSOCF(6),(OSOCF(6)/KT)*100,OPOCF(6),
(OPOCF(6)/KT)*100)(COL(65),A,COL(73),F(4),COL(79),F(6,2),
COL(91),F(4),COL(97),F(6,2));
PUT EDIT('@ SCHOOL',SCF(6),(SOF(6)/KT)*100,OSOCF(7),
(OSOCF(7)/KT)*100)(SKIP,A,COL(10),F(4),COL(16),F(6,2),COL(73),
F(4),COL(79),F(6,2));
PUT EDIT('SCHOOL TYPE')(SKIP(3),A);
PUT SKIP;
DO K=1 TO 9;
  PUT EDIT(K,SCF(K),(SCF(K)/KT)*100)(SKIP,F(1),COL(10),F(4),
  COL(16),F(6,2));
END;
PUT EDIT('UNKNOWN',SCF(0),(SCF(0)/KT)*100)(SKIP,A,COL(10),F(4),
COL(16),F(6,2));
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FC003810
F0003820
F0003830
F0003840
F0003850
F0003860
F0003870
F0003880
F0003890
F0003900
F0003910
F0003920
F0003930
F0003940
F0003950
F0003960
F0003970
F0003980
F0003990
F0004000
F0004010
F0004020
F0004030
F0004040
F0004050
F0004060
F0004070
F0004080
F0004090
F0004100
F0004110
F0004120
F0004130
F0004140
F0004150
F0004160
F0004170
F0004180
F0004190
F0004200
F0004210
F0004220
F0004230
F0004240
F0004250
F0004260
F0004270
F0004280
F0004290
F0004300
F0004310
F0004320
F0004330
F0004340

STMT	LEVEL	NEST		
453	2		PUT EDIT('RELIGION','RELIGION PRIOR TO 1972')	F0004350
454	2		(SKIP(3),A,COL(80),A);	F0004360
455	2		PUT SKIP;	F0004370
456	2	1	DO K=1 TO 5;	F0004380
			PUT EDIT(K,RLF(K),(RLF(K)/KT)*100,K,ORF(K),(ORF(K)/KT)*100)	F0004390
			(SKIP,F(1),COL(10),F(4),COL(16),F(6,2),COL(80),F(1),COL(89),	F0004400
			F(4),COL(94),F(6,2));	F0004410
457	2	1	END;	F0004420
458	2		PUT EDIT('6',ORF(6),(ORF(6)/KT)*100)(SKIP,COL(80),A(1),COL(89),	F0004430
			F(4),COL(94),F(6,2));	F0004440
459	2		PUT EDIT('POSITION IN FAMILY')(SKIP(3),A);	F0004450
460	2		PUT SKIP;	F0004460
461	2		PUT EDIT('')(SKIP,A);	F0004470
462	2		DO K=1 TO 10;	F0004480
463	2	1	PUT EDIT(K)(X(3),F(2));	F0004490
464	2		END;	F0004500
465	2		PUT SKIP;	F0004510
466	2		DO K=1 TO 9;	F0004520
467	2	1	PUT EDIT(K,'')(SKIP,F(1),A(1));	F0004530
468	2	1	DO J=1 TO 10;	F0004540
469	2	2	IF J<K THEN PUT EDIT('X')(X(4),A(1)); ELSE	F0004550
471	2	2	PUT EDIT(FPF(K,J))(X(1),F(4));	F0004560
472	2	2	END;	F0004570
473	2	1	END;	F0004580
474	2		PUT EDIT('10')(SKIP,A(2));	F0004590
475	2		DO K=1 TO 9;	F0004600
476	2	1	PUT EDIT('X')(X(4),A);	F0004610
477	2		END;	F0004620
478	2		PUT EDIT(FPF(10,10))(X(1),F(4));	F0004630
479	2		END;	F0004640
			*****	F0004650
480	1		ON FNDFILE(SCARDS) GOTO L49;	F0004660
482	1		OPEN FILE(SPRINT) LINESIZE(132);	F0004670
483	1		GET EDIT(FILN1,FILN2,YE)(COL(1),A(8),X(1),A(8),X(1),A(4));	F0004680
484	1		GET LIST(OPT);	F0004690
485	1		IF OPT<1 OPT>2 THEN	F0004700
486	1		DO; PUT EDIT('OPTION INVALID....PROGRAM TERMINATED')	F0004710
			(SKIP,COL(1),A);	F0004720
			GOTO L49;	F0004730
488	1	1	END;	F0004740
489	1	1	WRL='XXX'; WCR='X'; FREQ='X'; REQUEST=''; B='0'B;	F0004750
490	1		GET DATA;	F0004760
495	1		IF SUBSTR(WRL,1,1)='1' THEN WB='1'B; ELSE WB='0'B;	F0004770
496	1		IF SUBSTR(WRL,1,1)='2' THEN WPB='1'B; ELSE WPB='0'B;	F0004780
499	1		IF SUBSTR(WRL,2,1)='1' THEN RB='1'B; ELSE RB='0'B;	F0004790
502	1		IF SUBSTR(WRL,2,1)='2' THEN RP8='1'B; ELSE RP8='0'B;	F0004800
505	1		IF SUBSTR(WRL,3,1)='1' THEN LB='1'B; ELSE LB='0'B;	F0004810
508	1		IF SUBSTR(WRL,3,1)='2' THEN LPB='1'B; ELSE LPB='0'B;	F0004820
511	1		IF FREQ='1' THEN FB='1'B; ELSE FB='0'B;	F0004830
514	1		PUT EDIT('BCRS...BEDE COLLEGE RECORD SYSTEM','PROGRAMME F',	F0004840
517	1		'OPTION REQUESTED',OPT,'YEAR REQUESTED',YE)(PAGE,COL(1),A,	F0004850
			SKIP(2),COL(1),A,COL(1),A,COL(32),F(2),COL(1),A,COL(30),A);	F0004860
			PUT SKIP(2);	F0004870
518	1		IF WRL='XXX' THEN PUT EDIT('WRL REQUESTED',WRL)	F0004880
519	1			

STMT LEVEL NEST

521	1	(COL(1),A,COL(31),A); ELSE WPL='CC0';	FO0004890
522	1	IF WCR='X' THEN PUT EDIT('WCR REQUESTED',WCR)(COL(1),A,COL(33),	FO0004900
524	1	A); ELSE WCR='*';	FO0004910
525	1	IF FB THEN PUT EDIT('FREQUENCY TABLES REQUIRED')	FO0004920
		(SKIP,COL(1),A);	FO0004930
527	1	PUT SKIP(4);	FO0004940
528	1	IF ACON & (OPT=1 (OPT=2 & FB) (OPT=2 & REQUEST='*')) THEN	FO0004950
529	1	DO; CALL CON(FILN2);	FO0004960
531	1	BCON='Q'B;	FO0004970
532	1	END;	FO0004980
533	1	IF REQUEST='*' THEN GOTO L09;	FO0004990
		/*-----*/	FO0005000
535	1	L12:OPEN FILE(STUDENT) INPUT TITLE(FILN1);	FO0005010
536	1	ON ENDFILE(STUDENT)	FO0005020
537	1	BEGIN; DT=DATE;	FO0005030
539	2	DT=SUBSTR(DT,4,2) '/' SUBSTR(DT,1,2) '/'	FO0005040
		SUBSTR(DT,7,2);	FO0005050
540	2	IF OPT=1 OPT=2 THEN	FO0005060
541	2	DO; IF OPT=1 THEN PUT EDIT('E',FILE.....BEDE COLLEGE',	FO0005070
		' GENERAL FREQUENCIES')(SKIP(2),COL(1),A(4),X(1),A,A);	FO0005080
544	2	IF OPT=2 THEN PUT EDIT('FREQUENCY COUNT FOR REQUEST',	FO0005090
		REQUEST)(SKIP(2),COL(1),A,X(2),A);	FO0005100
546	2	PUT EDIT('KT',STUDENTS INCLUDED')	FO0005110
		(SKIP(3),COL(1),F(4),X(1),A);	FO0005120
547	2	IF KT=0 THEN GOTO L29;	FO0005130
549	2	IF ~SUPP THEN CALL SPNT;	FO0005140
551	2	IF OPT=2 & ~FB THEN GOTO L29;	FO0005150
553	2	PUT EDIT('FREQUENCY TABLE KEYS')	FO0005160
		(PAGE,COL(1),A);	FO0005170
554	2	CALL RFREQ;	FO0005180
555	2	PUT EDIT('FREQUENCIES','(TOTALS PERCENTAGES)')	FO0005190
		(PAGE,COL(1),A,X(2),A);	FO0005200
		CALL RECFPNT;	FO0005210
556	2	END;	FO0005220
557	2	PUT EDIT('DATE OF LISTING',DT)(SKIP(2),COL(1),A,X(1),A);	FO0005230
558	2	CLOSE FILE(STUDENT);	FO0005240
559	2	GOTO L39;	FO0005250
560	2		FO0005260
561	2		FO0005270
562	1	END;	FO0005280
565	1	DESL=''; KT=0; SUPP='Q'B;	FO0005290
566	1	IF OPT=1 THEN	FO0005300
575	1	DO; AGF=0; SXF=0; POF=0; RLF=0; SOF=0; MAF=0; RGF=0; STF=0;	FO0005310
		FPF=0; OVF=0; SCF=0; OAF=0; ORF=0; OPOCF=0; OSOCF=0;	FO0005320
582	1	END; ELSE	FO0005330
583	1	IF OPT=2 THEN	FO0005340
584	1	DO; LOP=''; CLAB=0; RLAB=0; RITEM=''; K=0;	FO0005350
590	1	IF SUBSTR(REQUEST,2,1)~=' ' THEN	FO0005360
591	1	CALL TRANS(REQUEST,LOP,CLAB,RLAB,RITEM,K);	FO0005370
592	1	IF K=0 THEN	FO0005380
593	1	DO; CLOSE FILE(STUDENT);	FO0005390
595	1	GOTO L39;	FO0005400
596	1	END;	FO0005410
597	1	IF FB THEN	FO0005420
598	1	DO; AGF=0; SXF=0; POF=0; RLF=0; SOF=0; MAF=0; RGF=0; STF=0;	
		FPF=0; OVF=0; SCF=0; OAF=0; ORF=0; OPOCF=0; OSOCF=0;	
607	1		

STMT	LEVEL	NEST		
614	1	2	END;	FC005430
615	1	1	END;	FC005440
616	1		L21: READ FILE(STUDENT) SET(PTP);	FC005450
617	1		IF ~WB & SUBSTR(TTFT(2,1),1,4)='WITH' THEN	FC005460
618	1		DO; IF WPB THEN	FC005470
620	1	1	DO; WD=SUBSTR(TTFT(1,2),1,2) '/' SUBSTR(TTFT(1,2),	FC005480
622	1	2	3,2) '/' SUBSTR(TTFT(1,2),5,2);	FC005490
623	1	2	PUT EDIT(DESN0,'WITHDREW ON',WD)(COL(1),A,2(X(1),A));	FC005500
624	1	1	END;	FC005510
625	1	1	GOTO L21;	FC005520
626	1		END; ELSE	FC005530
627	1		IF ~LB & SUBSTR(TTFT(2,1),1,4)='LEFT' THEN	FC005540
629	1	1	DO; IF LPE THEN	FC005550
			DO; WD=SUBSTR(TTFT(1,2),1,2) '/' SUBSTR(TTFT(1,2),	FC005560
			3,2) '/' SUBSTR(TTFT(1,2),5,2);	FC005570
			PUT EDIT(DESN0,'LEFT ON',WD)(COL(1),A,2(X(1),A));	FC005580
631	1	2	END;	FC005590
632	1	2	GOTO L21;	FC005600
633	1	1	END; ELSE	FC005610
634	1	1	IF ~RB & SUBSTR(TTFT(2,1),1,4)=' ' THEN	FC005620
635	1		DO; IF RPE THEN PUT EDIT(DESN0,'AT COLLEGE')(COL(1),A,X(1),A);	FC005630
636	1		GOTO L21;	FC005640
639	1	1	END; ELSE	FC005650
640	1	1	IF WB & WCR~='*' & WCR~='SUBSTR(TTFT(2,1),6,1) THEN GOTO L21;	FC005660
641	1		IF OPT=1 THEN	FC005670
643	1		DO; KT=KT+1;	FC005680
644	1		IF KT>1000 THEN SUPP='1'B;	FC005690
646	1	1	IF ~SUPP THEN DESL(KT)=DESN0;	FC005700
648	1	1	CALL RECFREQ;	FC005710
650	1	1	END; ELSE	FC005720
651	1	1	IF OPT=2 THEN	FC005730
652	1		DO; IF LOCST(LOP,CLAB,RLAB,RITEM,K) THEN	FC005740
653	1		DO; KT=KT+1;	FC005750
655	1	1	IF KT>1000 THEN SUPP='1'B;	FC005760
657	1	2	IF ~SUPP THEN DESL(KT)=DESN0;	FC005770
659	1	2	IF FB THEN	FC005780
661	1	2	CALL RECFREQ;	FC005790
662	1	2	END;	FC005800
663	1	2	GOTO L21;	FC005810
664	1	1	END;	FC005820
665	1		GOTO L21;	FC005830
			/*-----*/	FC005840
666	1		LOO: OPEN FILE(STUDENT) INPUT TITLE(FILN1);	FC005850
667	1		ON ENDFILE(STUDENT)	FC005860
668	1		BEGIN; CLOSE FILE(STUDENT);	FC005870
670	2		OPEN FILE(STUDENT) INPUT TITLE(FILN1);	FC005880
671	2		GOTO L01;	FC005890
672	2		END;	FC005900
673	1		AGF=0; SXF=0; POF=0; RLF=0; SOF=0; MAF=0; RGF=0; STF=0;	FC005910
681	1		FPP=0; DVF=0; SCF=0; OAF=0; DRF=0; OPOCF=0; OSOCF=0;	FC005920
688	1		DESL=' ' ; KT=0; SUPP='0'B;	FC005930
691	1		L02: GET EDIT(DESN02)(COL(1),A(8));	FC005940
692	1		IF DESN02='*****' THEN	FC005950
693	1		DO; PUT EDIT(YE,'FILE.....REDE COLLEGE GENERAL FREQUENCIES',	FC005960
			' FOR REQUEST='*','*','*')(SKIP(2),COL(1),A,X(1),A,A);	

STMT	LEVEL	NEST		
695	1	1	PUT EDIT(KT,'STUDENTS INCLUDED')(SKIP(3),COL(1),F(4),X(1),A);	F0005970
696	1	1	IF KT=0 THEN GOTO L03;	F0005980
698	1	1	IF ~SUPP THEN CALL SPNT;	F0005990
700	1	1	PUT EDIT('FREQUENCY TABLE KEYS')(PAGE,COL(1),A);	F0006000
701	1	1	CALL RFREQ;	F0006010
702	1	1	PUT EDIT('FREQUENCIES','(TOTALS PERCENTAGES)')	F0006020
			(PAGE,COL(1),A,X(2),A);	F0006030
703	1	1	CALL RECFPNT;	F0006040
704	1	1	DT=DATE;	F0006050
705	1	1	DT=SUBSTR(DT,4,2) '/' SUBSTR(DT,1,2) '/'	F0006060
			SUBSTR(DT,7,2);	F0006070
706	1	1	PUT FCIT('DATE OF LISTING',DT)(SKIP(2),COL(1),A,X(1),A);	F0006080
707	1	1	CLOSE FILE(STUDENT);	F0006090
708	1	1	GOTO L39;	F0006100
709	1	1	END;	F0006110
710	1	1	L01: READ FILE(STUDENT) SET(PTR);	F0006120
711	1	1	IF DESNO=DESNO2 THEN	F0006130
712	1	1	DO; IF B THEN B='0'B;	F0006140
715	1	1	KT=KT+1;	F0006150
716	1	1	IF KT>1000 THEN SUPP='1'B;	F0006160
718	1	1	IF ~SUPP THEN DESL(KT)=DESNO;	F0006170
720	1	1	CALL RECFREQ;	F0006180
721	1	1	GOTO L02;	F0006190
722	1	1	END; ELSE	F0006200
723	1	1	DO; IF ~B THEN	F0006210
725	1	1	DO; DESNO3=DESNO;	F0006220
727	1	2	B='1'B;	F0006230
728	1	2	END; ELSE	F0006240
729	1	1	DO; IF DESNO=DESNO3 THEN	F0006250
731	1	2	DO; PUT EDIT(DESNO2,'CANNOT BE FOUND...DATA IGNORED')	F0006260
			(COL(1),A,X(1),A);	F0006270
			B='0'B;	F0006280
733	1	3	GOTO L02;	F0006290
734	1	3	END;	F0006300
735	1	3	END;	F0006310
736	1	2	GOTO L01;	F0006320
737	1	1	END;	F0006330
738	1	1	END;	F0006340
739	1	1	/*-----*/F0006350	F0006350
740	1	1	L49: PUT PAGE;	F0006360
			END;	F0006370

ATTRIBUTE AND CROSS-REFERENCE TABLE

DCL NO. IDENTIFIER

ATTRIBUTES AND REFERENCES

2	ADIP	IN EDUCATION IN RECORD,BASED(PTR),UNALIGNED,STRING(30),CHARACTER
2	ADIPC	IN EDUCATION IN RECORD,BASED(PTR),UNALIGNED,STRING(1),CHARACTER
3	***** AGF	(3)AUTOMATIC,ALIGNED,BINARY,FIXED(15,0) 3C8,3C8,3C9,310,310,414,414,415,415,567,599,673
2	***** AH4	(2,3)IN INTEL IN RECORD,EASEC(PTR),ALIGNED,BINARY,FIXED(15,0)
2	ANNPROG	IN RECORD,BASED(PTR),STRUCTURE
2	AP	IN ANNPROG IN RECORD,BASED(PTR),UNALIGNED,STRING(802),CHARACTER 174
2	ATO	IN EDUCATION IN RECORD,BASED(PTR),UNALIGNED,STRING(1),CHARACTER 142
2	AUTH	IN GENERAL IN RECORD,BASED(PTR),UNALIGNED,STRING(19),CHARACTER 104
2	AUTHND	IN GENERAL IN RECORD,BASED(PTR),UNALIGNED,STRING(1),CHARACTER 106
10	B	AUTOMATIC,UNALIGNED,STRING(1),BIT 494,713,714,724,727,733
10	BCON	AUTOMATIC,UNALIGNED,INITIAL,STRING(1),BIT 528,531
2	BE	IN FINALS IN RECORD,BASED(PTR),UNALIGNED,STRING(1),CHARACTER 181
189	C	(6)AUTOMATIC,INITIAL,LABEL 196
197	C1	STATEMENT LABEL CONSTANT
200	C2	STATEMENT LABEL CONSTANT
203	C3	STATEMENT LABEL CONSTANT
206	C4	STATEMENT LABEL CONSTANT
209	C5	STATEMENT LABEL CONSTANT
212	C6	STATEMENT LABEL CONSTANT
	CHAR	GENERIC,BUILT-IN FUNCTION 185
71	***** CLAB	(20)PARAMETER,ALIGNED,BINARY,FIXED(15,0)

DCL NO.	IDENTIFIER	ATTRIBUTES AND REFERENCES
14	***** CLAB	70,229 (20) PARAMETER, ALIGNED, BINARY, FIXED(15,0) 13,43,49,63,63
9	***** CLAB	(20) AUTOMATIC, ALIGNED, BINARY, FIXED(15,0) 586,591,654
2	CODES	(4) IN COURSE IN RECORD, BASED(PTR), UNALIGNED, STRING(3), CHARACTER 147
11	CON	EXTERNAL, ENTRY, DECIMAL, FLOAT(SINGLE) 530
188	***** COND	PARAMETER, ALIGNED, BINARY, FIXED(15,0) 187,196
2	CONF	IN GENERAL IN RECORD, BASED(PTR), UNALIGNED, STRING(1), CHARACTER 102
2	COURSE	IN RECORD, BASED(PTR), STRUCTURE
	DATE	BUILT-IN FUNCTION 538,704
2	DATE	(2) IN EDUCATION IN RECORD, BASED(PTR), UNALIGNED, STRING(6), CHARACTER
2	DC	(4,24:64) IN COURSE IN RECORD, BASED(PTR), UNALIGNED, STRING(1), CHARACTER 151,153,155,157,159,161,163,165,167,169
2	DC1	(4,26:30) IN COURSE IN RECORD, BASED(PTR), UNALIGNED, STRING(2), CHARACTER
2	DC46	(4) IN COURSE IN RECORD, BASED(PTR), UNALIGNED, STRING(3), CHARACTER 149
2	DC49	(4) IN COURSE IN RECORD, BASED(PTR), UNALIGNED, STRING(3), CHARACTER
2	DDIPC	IN EDUCATION IN RECORD, BASED(PTR), UNALIGNED, STRING(1), CHARACTER
2	DEG	(2) IN EDUCATION IN RECORD, BASED(PTR), UNALIGNED, STRING(3), CHARACTER 116
10	DESL	(1000) AUTOMATIC, UNALIGNED, STRING(8), CHARACTER 252,562,649,660,688,719
2	DESN0	IN RECORD, BASED(PTR), UNALIGNED, STRING(8), CHARACTER 312,317,323,334,345,356,371,379,385,394,406,622,631,638,649,660,711 719,726,730
10	DESN02	AUTOMATIC, UNALIGNED, STRING(8), CHARACTER 691,692,711,732

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10	DESN03	AUTOMATIC, UNALIGNED, STRING(8), CHARACTER 726, 730
2	D08	IN GENERAL IN RECORD, BASED(PTR), UNALIGNED, STRING(6), CHARACTER 82, 303
2	D08C	IN GENERAL IN RECORD, BASED(PTR), UNALIGNED, STRING(1), CHARACTER
2	***** DSCALF	(2) IN INTEL IN RECORD, BASED(PTR), ALIGNED, BINARY, FIXED(15, C)
10	DT	AUTOMATIC, UNALIGNED, STRING(8), CHARACTER 538, 539, 539, 539, 558, 704, 705, 705, 705, 706
2	EDUCATION	IN RECORD, BASEC(PTR), STRUCTURE
1	F	ENTRY, DECIMAL, FLOAT(SINGLE)
10	FB	AUTOMATIC, UNALIGNED, STRING(1), BIT 515, 516, 525, 528, 551, 597, 661
10	FILN1	AUTOMATIC, UNALIGNED, STRING(8), CHARACTER 483, 535, 666, 670
10	FILN2	AUTOMATIC, UNALIGNED, STRING(8), CHARACTER 483, 530
2	FINALS	IN RECORD, BASED(PTR), STRUCTURE
73	FIND	ENTRY, DECIMAL, FLOAT(SINGLE) 225
2	***** FK	(100, 2) IN ANNPROG IN RECORD, BASED(PTR), ALIGNED, BINARY, FIXED (15, 0) 173, 174, 174
3	***** FPF	(10, 10) AUTOMATIC, ALIGNED, BINARY, FIXED(15, 0) 405, 405, 471, 478, 575, 607, 681
2	FPOS	IN GENERAL IN RECORD, BASED(PTR), UNALIGNED, STRING(4), CHARACTER 108, 396, 400
2	FPT	(2) IN EDUCATION IN RECORD, BASED(PTR), UNALIGNED, STRING(1), CHARACTER
10	FREQ	AUTOMATIC, UNALIGNED, STRING(1), CHARACTER 492, 514
2	FT	(2, 2) IN EDUCATION IN RECORD, BASED(PTR), UNALIGNED, STRING(6), CHARACTER
2	GENERAL	IN RECORD, BASED(PTR), STRUCTURE
4	GRC	STATIC, EXTERNAL, UNALIGNED, STRING(11), CHARACTER, VARYING 265, 382, 424
4	GRK	(11) STATIC, EXTERNAL, UNALIGNED, STRING(30), CHARACTER, VARYING

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ATTRIBUTES AND REFERENCES

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(2) IN EDUCATION IN RECORD,BASED(PTR),UNALIGNED,STRING(4),CHARACTER
AUTCMATIC,ALIGNED,BINARY,FIXED(15,0)
299,300,305,307,310,320,321,326,327,327,331,332,332,337,338,338
342,343,343,348,349,349,353,354,354,363,364,364,369,376,377
377,382,383,383,384,384,391,392,392,398,398,399,404,404,405,405,406

247 ***** I

AUTOMATIC,ALIGNED,BINARY,FIXED(15,0)
249,250,252

74 ***** I

AUTCMATIC,ALIGNED,BINARY,FIXED(15,0)
78,81,84,122,123,124,125,133,134,135,136,137,138,146,147,151,153,155
157,159,161,163,165,167,169,172,173,174,174

72 ***** I

AUTOMATIC,ALIGNED,BINARY,FIXED(15,0)
217,218,218,218,218,218,218,218,218,219,219,220,220,220,220,220
220,222,222,225,226,226,226,226,226,226,226,226,227,227,228,229
231,234,240,240

17 ***** I

AUTOMATIC,ALIGNED,BINARY,FIXED(15,0)
21,22,25,39,40,44,50,53,54,54,56,57,57,59,60

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2 INTEL

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2 INTELB

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188 ITEM

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74 ITEM

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142,144,147,149,151,153,155,157,159,161,163,165,167,169,174,175,177
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72 ITEM

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AUTOMATIC,ALIGNED,BINARY,FIXED(15,0)
468,469,471

297 ***** J

AUTOMATIC,ALIGNED,BINARY,FIXED(15,0)
304,305,307,310,387,388,402,403,404,404,405,405,406

74 ***** J

AUTOMATIC,ALIGNED,BINARY,FIXED(15,0)
83,84

72 ***** J

AUTOMATIC,ALIGNED,BINARY,FIXED(15,0)
231,232,234

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17	***** J	AUTOMATIC, ALIGNED, BINARY, FIXED(15,0) 34,35,43,49,60,61,61,62,62,63,63,64,64
409	***** K	AUTOMATIC, ALIGNED, BINARY, FIXED(15,0) 418,419,419,419,423,424,424,428,429,429,429,429,429,431,432 432,432,436,437,437,437,442,443,443,443,443,443,443 449,450,450,450,455,456,456,456,456,462,463,466,467,469,471 475
297	***** K	AUTOMATIC, ALIGNED, BINARY, FIXED(15,0) 386,387
256	***** K	AUTOMATIC, ALIGNED, BINARY, FIXED(15,0) 259,260,260,264,265,265,269,270,270,270,270,275,276,276,280,281,281 281,281,283,286,287,287,287,292,293,293
72	***** K	PARAMETER, ALIGNED, BINARY, FIXED(15,0) 70,217,222,231,240
17	***** K	PARAMETER, ALIGNED, BINARY, FIXED(15,0) 13,19,42,42,43,45,48,48,49,51,53,56,60,65,65
10	***** K	AUTOMATIC, ALIGNED, BINARY, FIXED(15,0) 589,591,592,654
74	***** KC	AUTOMATIC, ALIGNED, BINARY, FIXED(15,0) 84,120,126,126,131,139,139,185
10	***** KT	AUTOMATIC, ALIGNED, BINARY, FIXED(15,0) 249,411,412,414,414,415,419,424,429,432,437,439,443,443,443 445,445,446,446,450,452,456,456,458,547,563,645,645,646,649,656 656,657,660,689,695,696,715,715,716,719
666	LOC	STATEMENT LABEL CONSTANT 534
710	LOC1	STATEMENT LABEL CONSTANT 671,737
691	LOC2	STATEMENT LABEL CONSTANT 721,734
704	LOC3	STATEMENT LABEL CONSTANT 697
185	L1	STATEMENT LABEL CONSTANT 85,128,141
535	L12	STATEMENT LABEL CONSTANT
616	L21	STATEMENT LABEL CONSTANT 624,633,639,642,665
557	L29	STATEMENT LABEL CONSTANT

DCL NO.	IDENTIFIER	ATTRIBUTES AND REFERENCES
386	L3	548,552
483	L39	STATEMENT LABEL CONSTANT 381
739	L49	STATEMENT LABEL CONSTANT 560,595,708
55	L61	STATEMENT LABEL CONSTANT 481,488
39	L62	STATEMENT LABEL CONSTANT 26,32,38
243	L66	STATEMENT LABEL CONSTANT 36
17	***** LB	STATEMENT LABEL CONSTANT 223,235,241
10	LB	AUTOMATIC, ALIGNED, BINARY, FIXED(15,0) 25,44,44,50,50
2	LE	AUTOMATIC, UNALIGNED, STRING(1), BIT 509,510,626
2	***** LEAP	IN COURSE IN RECORD, BASED(PTR), UNALIGNED, STRING(1), CHARACTER 78
2	LEN	IN ANNPROG IN RECORD, BASED(PTR), ALIGNED, BINARY, FIXED(15,0) 144
	LENGTH	IN COURSE IN RECORD, BASED(PTR), UNALIGNED, STRING(1), CHARACTER 144
17	***** LK	GENERIC, BUILT-IN FUNCTION 18,192,195
17	***** LL	AUTOMATIC, ALIGNED, BINARY, FIXED(15,0) 20,30,30,31
70	LOCTST	AUTOMATIC, ALIGNED, BINARY, FIXED(15,0) 18,21
71	LOP	ENTRY, STRING(1), BIT 654
14	LOP	(20) PARAMETER, UNALIGNED, STRING(1), CHARACTER 70,222,232,240
9	LOP	(20) PARAMETER, UNALIGNED, STRING(1), CHARACTER 13,31,61,61
		(20) AUTOMATIC, UNALIGNED, STRING(1), CHARACTER 585,591,654

Dataset: Limited

DCL NO.		IDENTIFIER	ATTRIBUTES AND REFERENCES
10		LPB	AUTCMATIC,UNALIGNED,STRING(1),BIT 512,513,628
74		***** LR	PARAMETER,ALIGNED,BINARY,FIXED(15,0) 73,77,77,79
17		LR	AUTOMATIC,UNALIGNED,STRING(3),CHARACTER 44,45,50,51
3		***** MAF	(3)AUTOMATIC,ALIGNED,BINARY,FIXED(15,C) 321,321,419,419,572,604,678
2		MART	IN GENERAL IN RECORD,BASED(PTR),UNALIGNED,STRING(1),CHARACTER 88,318,318,320
4		MK	(3)STATIC,EXTERNAL,UNALIGNED,STRING(12),CHARACTER,VARYING 260
		MOD	GENERIC,BUILT-IN FUNCTION 250
2		NAME	IN RECORD,BASED(PTR),UNALIGNED,STRING(40),CHARACTER
17		***** NB	AUTOMATIC,ALIGNED,BINARY,FIXED(15,0) 39,53,54
6		***** OAF	(4)AUTOMATIC,ALIGNED,BINARY,FIXED(15,0) 343,343,429,429,578,610,684
5		OAK	(4)STATIC,EXTERNAL,UNALIGNED,STRING(40),CHARACTER,VARYING 270
4		OK	(10)STATIC,EXTERNAL,UNALIGNED,STRING(35),CHARACTER,VARYING 274,276
297		OKB	AUTOMATIC,UNALIGNED,STRING(1),BIT 301,302,324,329,335,340,346,351,358,361,366,380
8		***** OPOCF	(6)AUTOMATIC,ALIGNED,BINARY,FIXED(15,0) 354,354,443,443,445,445,580,612,686
7		OPSOX	(6)STATIC,EXTERNAL,UNALIGNED,STRING(40),CHARACTER,VARYING 281,283
10		***** OPT	AUTOMATIC,ALIGNED,BINARY,FIXED(15,0) 484,485,485,517,528,528,540,540,542,544,551,565,583,643,652
2		OQ	(2)IN EDUCATION IN RECORD,BASED(PTR),UNALIGNED,STRING(30),CHARACTER
2		OQC	(2)IN EDUCATION IN RECORD,BASED(PTR),UNALIGNED,STRING(4),CHARACTER
6		***** ORF	(6)AUTOMATIC,ALIGNED,BINARY,FIXED(15,0) 332,332,456,456,458,458,579,611,685

DCL NO. IDENTIFIER

ATTRIBUTES AND REFERENCES

5 ORK

(6) STATIC,EXTERNAL,UNALIGNED,STRING(30),CHARACTER,VARYING
287,289

8 ***** OSOCF

(7)AUTOMATIC,ALIGNED,BINARY,FIXED(15,0)
360,360,369,369,443,443,445,445,446,446,581,613,687

2 OV25

IN GENERAL IN RECORD,BASED(PTR),UNALIGNED,STRING(1),CHARACTER
98,372,374,374,376

3 ***** OVF

(10)AUTOMATIC,ALIGNED,BINARY,FIXED(15,0)
373,373,377,377,437,437,439,439,576,608,682

16 PCOND

(6)AUTOMATIC,UNALIGNED,INITIAL,STRING(2),CHARACTER,VARYING
35

2 ***** PF16

(2,16)IN INTEL IN RECORD,BASED(PTR),ALIGNED,BINARY,FIXED(15,0)

2 PNAME

IN GENERAL IN RECORD,BASED(PTR),UNALIGNED,STRING(17),CHARACTER

2 POCC

IN GENERAL IN RECORD,BASED(PTR),UNALIGNED,STRING(1),CHARACTER
94,346,346,348,351,351,353

3 ***** PNF

(5)AUTOMATIC,ALIGNED,BINARY,FIXED(15,0)
349,349,443,443,569,601,675

4 PSOK

(5)STATIC,EXTERNAL,UNALIGNED,STRING(65),CHARACTER,VARYING
281

PTR

AUTOMATIC,ALIGNED,POINTER

78,80,82,86,88,90,92,94,96,98,100,102,104,106,108,110,112,114,116
118,121,123,124,125,129,132,134,135,136,137,138,142,144,147,149,151
153,155,157,159,161,163,165,167,169,173,174,174,177,179,181,183
221,298,303,312,313,315,317,318,318,320,323,324,324,326,329,331
334,335,335,337,340,342,345,346,346,348,351,351,353,356,357,361
361,363,366,366,368,371,372,374,374,376,379,382,385,386,388,394,396
400,406,616,617,621,621,622,626,630,630,630,631,635,638,641,649
660,710,711,719,726,730

74 QC

AUTOMATIC,DEFINED,UNALIGNED,STRING(3),CHARACTER
136,136

74 QE

AUTOMATIC,DEFINED,UNALIGNED,STRING(3),CHARACTER
75,76,76,135,135

74 QG

AUTOMATIC,DEFINED,UNALIGNED,STRING(1),CHARACTER
137,137

74 QR

AUTOMATIC,DEFINED,UNALIGNED,STRING(1),CHARACTER
138,138

72 ***** QS

AUTOMATIC,ALIGNED,BINARY,FIXED(15,0)
121,122,132,133

Dataset Limited

DCL NO.	IDENTIFIER	ATTRIBUTES AND REFERENCES
2	QUAL	(30) IN EDUCATION IN RECORD,BASED(PTR),UNALIGNED,STRING(10),CHARACTER 134,135,136,137,138
2	QUALNO	IN EDUCATION IN RECORD,BASED(PTR),UNALIGNED,STRING(2),CHARACTER 129,132
74	QV	AUTOMATIC,DEFINED,UNALIGNED,STRING(2),CHARACTER 134,134
74	R	(40)AUTOMATIC,INITIAL,LABEL 80,86,88,90,92,94,96,98,100,102,104,106,108,110,112,114,116,118,120 129,131,142,144,146,149,151,153,155,157,159,161,163,165,167,169,171 177,179,181,183,79
10	RB	AUTOMATIC,UNALIGNED,STRING(1),BIT 503,504,635
408	RECPNT	ENTRY,DECIMAL,FLOAT(SINGLE) 556,703
296	RECREQ	ENTRY,DECIMAL,FLOAT(SINGLE) 650,662,720
2	RECORD	BASED(PTR),STRUCTURE
2	REG	IN GENERAL IN RECORD,BASED(PTR),UNALIGNED,STRING(1),CHARACTER 92,382
2	REL	IN GENERAL IN RECORD,BASED(PTR),UNALIGNED,STRING(1),CHARACTER 100,324,324,326,329,329,331
74	REQI	PARAMETER,UNALIGNED,STRING(12),CHARACTER 73,171,171
72	REQI	AUTOMATIC,UNALIGNED,STRING(12),CHARACTER 219,221,225
72	REQM	AUTOMATIC,UNALIGNED,STRING(20),CHARACTER,VARYING 227,228,229
188	REQU	PARAMETER,UNALIGNED,STRING(20),CHARACTER,VARYING 187,193,194,195,197,200,203,206,209,212
15	REQUEST	PARAMETER,UNALIGNED,STRING(400),CHARACTER,VARYING 13,18,22,39,40,44,50,53
10	REQUEST	AUTOMATIC,UNALIGNED,STRING(400),CHARACTER,VARYING 493,528,533,545,590,591
255	RREQK	ENTRY,DECIMAL,FLOAT(SINGLE) 554,701
3	*****RGF	(11)AUTOMATIC,ALIGNED,BINARY,FIXED(15,0) 384,384,424,424,573,605,679

DCL NO.	IDENTIFIER	ATTRIBUTES AND REFERENCES
71	RITEM	(20)PARAMETER,UNALIGNED,String(20),CHARACTER,VARYING 70,219,219,227,227,228
14	RITEM	(20)PARAMETER,UNALIGNED,String(20),CHARACTER,VARYING 13,53,64,64
9	RITEM	(2C)AUTOMATIC,UNALIGNED,String(20),CHARACTER,VARYING 588,591,654
4	RK	(5)STATIC,EXTERNAL,UNALIGNED,String(30),CHARACTER,VARYING 287
71	***** PLAB	(20)PARAMETER,ALIGNED,BINARY,Fixed(15,C) 70,218,218,218,218,218,218,218,220,220,220,220,220,225 226,226,226,226,226,226,226,226,226,226,226
14	***** RLAB	(20)PARAMETER,ALIGNED,BINARY,Fixed(15,0) 13,45,51,57,57,59,62,62
9	***** RLAB	(20)AUTOMATIC,ALIGNED,BINARY,Fixed(15,0) 587,591,654
3	***** RLf	(5)AUTOMATIC,ALIGNED,BINARY,Fixed(15,0) 327,327,456,456,570,602,676
10	RPB	AUTOMATIC,UNALIGNED,String(1),BIT 506,507,637
	SCARDS	FILE,EXTERNAL 480,483,484,495,691
3	***** SCF	(C:9)AUTOMATIC,ALIGNED,BINARY,Fixed(15,0) 392,392,450,450,452,452,577,609,683
2	SCH	(10)IN EDUCATION IN RECORD,BASED(PTR),UNALIGNED,String(5),CHARACTER 123,124,125,388
2	SCHND	IN EDUCATION IN RECORD,BASED(PTR),UNALIGNED,String(2),CHARACTER 118,121,386
4	SCK	(9)STATIC,EXTERNAL,UNALIGNED,String(60),CHARACTER,VARYING 293
2	SET	IN GENERAL IN RECORD,BASED(PTR),UNALIGNED,String(1),CHARACTER 90,335,335,337,340,340,342
2	SEX	IN GENERAL IN RECORD,BASED(PTR),UNALIGNED,String(1),CHARACTER 86,313,315
2	SOCC	IN GENERAL IN RECORD,BASED(PTR),UNALIGNED,String(1),CHARACTER 96,357,361,361,363,366,366,368
3	***** SOF	(6)AUTOMATIC,ALIGNED,BINARY,Fixed(15,0)

DCL NO.	IDENTIFIER	ATTRIBUTES AND REFERENCES
246	SPNT	359,359,364,364,443,443,446,446,571,603,677 ENTRY,DECIMAL,FLOAT(SINGLE) 550,699
	SPRINT	FILE,EXTERNAL 59,248,251,252,257,258,260,262,263,265,267,268,270,272,273,274,276 278,279,281,283,284,285,287,289,290,291,293,312,317,323,334,345,356 371,379,385,394,406,410,411,412,413,414,415,416,417,419,421,422,424 426,427,429,432,434,435,437,439,440,441,443,445,446,447,448,450,452 453,454,456,458,459,460,461,463,465,467,470,471,474,476,478,482,487 517,518,520,523,526,527,543,545,546,553,555,558,622,631,638,694,695 700,702,706,732,739
74	ST	AUTOMATIC,DEFINED,UNALIGNED,STRING(1),CHARACTER 123,123,146
2	***** STEN	(2,16)IN INTEL IN RECORD,BASED(PTR),ALIGNED,BINARY,FIXED(15,0)
3	***** STF	(6)AUTOMATIC,ALIGNED,BINARY,FIXED(15,0) 338,338,429,429,432,432,574,606,680
4	STK	(6)STATIC,EXTERNAL,UNALIGNED,STRING(50),CHARACTER,VARYING 270,272,272
12	STUDENT	FILE,EXTERNAL,RECORD,ENVIRONMENT(F(2416)) 535,536,559,594,616,666,667,669,670,707,710
2	SUB	(2)IN EDUCATION IN RECORD,BASED(PTR),UNALIGNED,STRING(36),CHARACTER
2	SUBCAR	IN FINALS IN RECORD,BASED(PTR),UNALIGNED,STRING(1),CHARACTER 183
	SUBSTR	GENERIC,BUILT-IN FUNCTION 22,39,40,44,50,53,80,82,123,124,125,134,135,136,137,138,171,174,192 195,219,221,227,265,298,303,388,396,400,424,496,459,502,505,508 511,539,539,590,617,621,621,621,626,630,630,630,635,641,705,705 705
10	SUPP	AUTOMATIC,UNALIGNED,STRING(1),BIT 549,564,647,648,658,659,690,698,717,718
3	***** SXF	(2)AUTOMATIC,ALIGNED,BINARY,FIXED(15,0) 314,314,316,316,411,411,412,412,568,600,674
74	SYF	AUTOMATIC,DEFINED,UNALIGNED,STRING(2),CHARACTER 124,124
74	SYT	AUTOMATIC,DEFINED,UNALIGNED,STRING(2),CHARACTER 125,125
2	TC	IN FINALS IN RECORD,BASED(PTR),UNALIGNED,STRING(1),CHARACTER 177

DCL NO.	IDENTIFIER	ATTRIBUTES AND REFERENCES
187	TFST	ENTRY,STRING(1),BIT 229
2	TITLE	IN GENERAL IN RECORD,BASED(PTR),UNALIGNED,STRING(2),CHARACTER
13	TRANS	ENTRY,DECIMAL,FLOAT(SINGLE) 591
	TRANSLATE	GENERIC,BUILT-IN FUNCTION 76,228
2	TTFT	(2,2)IN GENERAL IN RECORD,BASED(PTR),UNALIGNED,STRING(6),CHARACTER 80,110,221,298,617,621,621,626,630,630,635,641
2	UNCOL	(2)IN EDUCATION IN RECORD,BASED(PTR),UNALIGNED,STRING(21),CHARACTER 112
2	UNOTH	(2)IN EDUCATION IN RECORD,BASED(PTR),UNALIGNED,STRING(21),CHARACTER 114
2	***** VALUES	(2,6)IN INTEL IN RECORD,BASED(PTR),ALIGNED,BINARY,FIXED(15,0)
10	WB	AUTOMATIC,UNALIGNED,STRING(1),BIT 497,498,617,641
10	WCR	AUTOMATIC,UNALIGNED,STRING(1),CHARACTER 491,522,523,524,641,641
10	WD	AUTOMATIC,UNALIGNED,STRING(8),CHARACTER 621,622,630,631
10	WPB	AUTOMATIC,UNALIGNED,STRING(1),BIT 500,501,619
10	WRL	AUTOMATIC,UNALIGNED,STRING(3),CHARACTER 490,496,499,502,505,508,511,519,520,521
2	WS	IN FINALS IN RECORD,BASED(PTR),UNALIGNED,STRING(1),CHARACTER 179
297	X1	AUTOMATIC,UNALIGNED,STRING(1),CHARACTER 388,389,389,391
17	X1	AUTOMATIC,UNALIGNED,STRING(1),CHARACTER 22,23,28,28,31,35
297	X2	AUTOMATIC,UNALIGNED,STRING(2),CHARACTER 298,299,303,304,396,397,399,400,401,403
74	X2	AUTOMATIC,UNALIGNED,STRING(2),CHARACTER 80,81,82,83
188	X20	AUTOMATIC,UNALIGNED,STRING(20),CHARACTER,VARYING 190,192,192,193,195,195

DCL NO.	IDENTIFIER	ATTRIBUTES AND REFERENCES
74	XVAR	AUTOMATIC, UNALIGNED, STRING(3), CHARACTER, VARYING 171, 172
2	YC	IN GENERAL IN RECORD, BASED(PTP), UNALIGNED, STRING(2), CHARACTER
10	YE	AUTOMATIC, UNALIGNED, STRING(4), CHARACTER 483, 517, 543, 694

AGGREGATE LENGTH TABLE

STATEMENT NO.	IDENTIFIER	LENGTH IN BYTES
3	AGF	6
189	C	48
9	CLAB	40
10	DESL	8000
3	FPE	200
4	GPK	330
9	LOP	20
3	MAF	6
4	MK	36
6	OAF	8
5	OAK	160
4	OK	350
8	OPQCF	12
7	OPSOX	240
6	ORF	12
5	ORK	180
8	OSQCF	14
3	OVF	22
16	PCOND	12
3	POF	10
4	PSOK	325
74	R	320
2	RECORD	2416
3	RGF	22
9	RITEM	400
4	RK	150

STATEMENT NO.	IDENTIFIER	LENGTH IN BYTES
9	RLAB	40
3	RLF	10
3	SCF	20
4	SCK	540
3	SNF	12
3	STF	12
4	STK	300
3	SXF	4

STORAGE REQUIREMENTS.

THE STORAGE AREA FOR THE PROCEDURE LABELLED F IS 11100 BYTES LONG.
THE STORAGE AREA FOR THE PROCEDURE LABELLED TRANS IS 1140 BYTES LONG.
THE STORAGE AREA FOR THE PROCEDURE LABELLED LOCST IS 1120 BYTES LONG.
THE STORAGE AREA FOR THE PROCEDURE LABELLED FIND IS 1436 BYTES LONG.
THE STORAGE AREA FOR THE PROCEDURE LABELLED TEST IS 1076 BYTES LONG.
THE STORAGE AREA FOR THE PROCEDURE LABELLED SPNT IS 924 BYTES LONG.
THE STORAGE AREA FOR THE PROCEDURE LABELLED RFREQ IS 1056 BYTES LONG.
THE STORAGE AREA FOR THE PROCEDURE LABELLED RECFREQ IS 1072 BYTES LONG.
THE STORAGE AREA FOR THE PROCEDURE LABELLED RECFPNT IS 1180 BYTES LONG.
THE STORAGE AREA FOR THE ON UNIT AT STATEMENT NO. 480 IS 896 BYTES LONG.
THE STORAGE AREA FOR THE ON UNIT AT STATEMENT NO. 537 IS 1024 BYTES LONG.
THE STORAGE AREA FOR THE ON UNIT AT STATEMENT NO. 668 IS 928 BYTES LONG.
THE PROGRAM CSECT IS NAMED F AND IS 61448 BYTES LONG.
THE STATIC CSECT IS NAMED *****FA AND IS 9240 BYTES LONG.

STATISTICS SOURCE RECORDS = 637,PROG TEXT STMENTS = 740,OBJECT BYTES = 61448

COMPILER DIAGNOSTICS.

WARNINGS.

IEM0227I NO FILE/STRING OPTION SPECIFIED IN ONE OR MORE GET/PUT STATEMENTS. SYSIN/SYSPRINT HAS BEEN ASSUMED IN EACH CASE.

IEM0764I ONE OR MORE FIXED BINARY ITEMS OF PRECISION 15 OR LESS HAVE BEEN GIVEN HALFWORD STORAGE. THEY ARE FLAGGED '*****' IN THE XREF/ATR LIST.

IEM1790I DATA CONVERSIONS WILL BE DONE BY SUBROUTINE CALL IN THE FOLLOWING STATEMENTS 45, 51, 78, 81, 83, 121, 132, 146, 172, 299, 304, 320, 326, 331, 337, 342, 348, 353, 363, 368, 376, 386, 391, 399, 403.

END OF DIAGNOSTICS.

COMPILE TIME 68.86 SECS

ELAPSED TIME 219.04 SECS

THE COMPLETE LIST OF OPTIONS USED DURING THIS COMPILATION IS--

EBCDIC
CHAP60
NOMACRO
SOURCE2
NOMACDCK
COMP
SCURCE
ATP
XREF
NCEXTREF
NOLIST
NLOAD
DECK
FLAGW
STMT
SIZE=010P
LINECNT=060
OPT=01
SORMGIN=(001,072)
NEST
OPLIST

OPTIONS IN EFFECT
OPTIONS IN EFFECT
OPTIONS IN EFFECT
EBCDIC,CHAP60,NOMACRO,SOURCE2,NOMACDCK,COMP,SOURCE,ATR,XREF,NOEXTREF,NOLIST,NLOAD,
DECK,FLAGW,STMT,SIZE=010P,LINECNT=060,OPT=01,SORMGIN=(001,072),
NEST,OPLIST

STMT LEVEL NEST

STMT	LEVEL	NEST
1	1	CON:PRG(FILN2):
2	1	DCL FILN2 CHAR(8);
3	1	DCL (I,J,K) FIXED RINARY, AK(3,26) FIXED BINARY EXTERNAL, (AUTR(*) CHAR(19), AUTR1(*) CHAR(3), ATAB(*) CHAR(3), ATAB1(*) FIXED RINARY) CONTROLLED EXTERNAL, (ALPHA CHAR(26), NALC FIXED BINARY) EXTERNAL;
4	1	DCL (SCK(9) CHAR(60), PSOK(5) CHAR(55), STK(6) CHAR(50), MK(3) CHAR(12), OK(10) CHAR(35), RK(5) CHAR(30), GRC CHAR(11), GRK(11) CHAR(30), OAK(4) CHAR(40), ORK(6) CHAR(30), OPSOK(6) CHAR(40)) VARYING EXTERNAL;
5	1	DCL NORM(2,16,10) FIXED BINARY EXTERNAL;
6	1	DCL NORM2(2,16,2) FLOAT DECIMAL EXTERNAL;
7	1	DCL CONST FILE;
8	1	/*-----*/
9	1	OPEN FILE(CONST) INPUT TITLE(FILN2);
10	1	DO I=1 TO 26;
11	1	GET FILE(CONST) LIST(AK(1,I));
12	1	END;
13	1	AK(2,1)=1; AK(3,1)=AK(2,1)+AK(1,1)-1;
14	1	DO I=2 TO 26;
15	1	AK(2,I)=AK(3,I-1)+1;
16	1	AK(3,I)=AK(1,I)+AK(2,I)-1;
17	1	END;
18	1	N=SUM(AK(1,*));
19	1	ALLOCATE AUTR(N),AUTR1(N);
20	1	DO K=1 TO 26;
21	1	DO I=AK(2,K) TO AK(3,K);
22	1	GET FILE(CONST) EDIT(AUTR(I),AUTR1(I)) (COL(1),A(19),COL(40),A(3));
23	1	END;
24	1	END;
25	1	GET FILE(CONST) EDIT((OAK(K) DO K=1 TO 4))((4(COL(1),A(40))));
26	1	GET FILE(CONST) EDIT((ORK(K) DO K=1 TO 6))((6(COL(1),A(30))));
27	1	GET FILE(CONST) EDIT((OPSOK(K) DO K=1 TO 6))((6(COL(1),A(40))));
28	1	GET FILE(CONST) EDIT((SCK(I) DO I=1 TO 9))((9(COL(1),A(60))));
29	1	GET FILE(CONST) EDIT((PSOK(I) DO I=1 TO 5))((5(COL(1),A(65))));
30	1	GET FILE(CONST) EDIT((STK(I) DO I=1 TO 6))((6(COL(1),A(50))));
31	1	GET FILE(CONST) EDIT((MK(I) DO I=1 TO 3))((3(COL(1),A(12))));
32	1	GET FILE(CONST) EDIT((OK(I) DO I=1 TO 10))((10(COL(1),A(35))));
33	1	GET FILE(CONST) EDIT((RK(I) DO I=1 TO 5))((5(COL(1),A(30))));
34	1	GET FILE(CONST) EDIT((GRK(I) DO I=1 TO 11))((11(COL(1),A(30))));
35	1	GET FILE(CONST) EDIT(Alpha)(COL(1),A(26));
36	1	GRC=SUBSTR(Alpha,1,11);
37	1	GET FILE(CONST) EDIT(NALC)(COL(1),F(3));
38	1	ALLOCATE ATAB(NALC),ATAB1(NALC);
39	1	GET FILE(CONST) SKIP;
40	1	GET FILE(CONST) EDIT((ATAB(I),ATAB1(I) DO I=1 TO NALC)) (X(2),A(3),X(1),F(2));
41	1	DO I=1 TO 2;
42	1	DO J=1 TO 16;
43	1	GET FILE(CONST) LIST((NORM(I,J,K) DO K=1 TO 10));
44	1	END;
45	1	GET FILE(CONST) LIST((NORM2(I,J,K) DO K=1 TO 2));
46	1	END;

STMT LEVEL NEST
47 1
48 1
END: CLOSE FILE(CCNST);

FC0006950
FC0006960

ATTRIBUTE AND CROSS-REFERENCE TABLE

DCL NO. IDENTIFIER

ATTRIBUTES AND REFERENCES

3	***** AK	(3,26)STATIC,EXTERNAL,ALIGNED,BINARY,FIXED(15,0) 10,12,13,13,13,15,15,16,16,16,18,21,21
3	ALPHA	STATIC,EXTERNAL,UNALIGNED,STRING(26),CHARACTER 35,36
3	ATAB	(*)EXTERNAL,CONTROLLED,UNALIGNED,STRING(*),CHARACTER 38,40
3	***** ATAB1	(*)EXTERNAL,CONTROLLED,ALIGNED,BINARY,FIXED(15,0) 38,40
3	AUTR	(*)EXTERNAL,CONTROLLED,UNALIGNED,STRING(*),CHARACTER 19,22
3	AUTR1	(*)EXTERNAL,CONTROLLED,UNALIGNED,STRING(*),CHARACTER 19,22
1	CON	ENTRY,DECIMAL,FLOAT(SINGLE)
7	CONST	FILE,EXTERNAL 8,10,22,25,26,27,28,29,30,31,32,33,34,35,37,39,40,43,44,47
2	FILN2	PARAMETER,UNALIGNED,STRING(8),CHARACTER 1,8
4	GRC	STATIC,EXTERNAL,UNALIGNED,STRING(11),CHARACTER,VARYING 36
4	GRK	(11)STATIC,EXTERNAL,UNALIGNED,STRING(30),CHARACTER,VARYING 34
3	***** I	AUTOMATIC,ALIGNED,BINARY,FIXED(15,0) 9,10,14,15,15,16,16,16,21,22,22,28,28,29,29,30,30,31,31,32,32,33,33 34,34,40,40,40,41,43,44
3	***** J	AUTOMATIC,ALIGNED,BINARY,FIXED(15,0) 42,43,44
3	***** K	AUTOMATIC,ALIGNED,BINARY,FIXED(15,0) 20,21,21,25,25,26,26,27,27,43,43,44,44
4	MK	(3)STATIC,EXTERNAL,UNALIGNED,STRING(12),CHARACTER,VARYING 31
	***** N	AUTOMATIC,ALIGNED,BINARY,FIXED(15,0) 18,19,19
3	***** NALC	STATIC,EXTERNAL,ALIGNED,BINARY,FIXED(15,0) 37,38,38,40

DCL NO.	IDENTIFIER	ATTRIBUTES AND REFERENCES
5	***** NORM	(2,16,1C)STATIC,EXTERNAL,ALIGNED,BINARY,FIXED(15,0) 43
6	NOPM2	(2,16,2)STATIC,EXTERNAL,ALIGNED,DECIMAL,FLOAT(SINGLE) 44
4	OAK	(4)STATIC,EXTERNAL,UNALIGNED,STRING(40),CHARACTER,VARYING 25
4	OK	(10)STATIC,EXTERNAL,UNALIGNED,STRING(35),CHARACTER,VARYING 32
4	OPSOK	(6)STATIC,EXTERNAL,UNALIGNED,STRING(40),CHARACTER,VARYING 27
4	ORK	(6)STATIC,EXTERNAL,UNALIGNED,STRING(30),CHARACTER,VARYING 26
4	PSOK	(5)STATIC,EXTERNAL,UNALIGNED,STRING(65),CHARACTER,VARYING 29
4	RK	(5)STATIC,EXTERNAL,UNALIGNED,STRING(30),CHARACTER,VARYING 33
4	SCK	(9)STATIC,EXTERNAL,UNALIGNED,STRING(60),CHARACTER,VARYING 28
4	STK	(6)STATIC,EXTERNAL,UNALIGNED,STRING(50),CHARACTER,VARYING 30
	SUBSTR	GENERIC,BUILT-IN FUNCTION 36
	SUM	GENERIC,BUILT-IN FUNCTION 18

AGGREGATE LENGTH TABLE

STATEMENT NO.	IDENTIFIER	LENGTH IN BYTES
3	AK	156
38	ATAR	ADJUSTABLE
38	ATABI	ADJUSTABLE
19	AUTR	ADJUSTABLE
19	AUTRI	ADJUSTABLE
4	GRK	330
4	MK	36
5	NORM	640
6	NORM2	256
4	OAK	160
4	OK	350
4	OPSOX	240
4	ORR	180
4	PSOX	325
4	RK	150
4	SCK	540
4	STK	300

STORAGE REQUIREMENTS.

THE STORAGE AREA (IN STATIC) FOR THE PROCEDURE LABELLED CON IS 388 BYTES LONG.
THE PROGRAM CSECT IS NAMED CON AND IS 4294 BYTES LONG.
THE STATIC CSECT IS NAMED ***CUNA AND IS 1044 BYTES LONG.

STATISTICS SOURCE RECORDS = 58, PROG TEXT STMENTS = 48, OBJECT BYTES = 4294

COMPILER DIAGNOSTICS.

WARNINGS.

1EM0526I 1 OPTION MAIN HAS NOT BEEN SPECIFIED FOR THE EXTERNAL PROCEDURE, STATEMENT NUMBER 1
1EM0764I ONE OR MORE FIXED BINARY ITEMS OF PRECISION 15 OR LESS HAVE BEEN GIVEN HALFWORD STORAGE. THEY
ARE FLAGGED ***** IN THE XREF/ATP LIST.

END OF DIAGNOSTICS.

COMPILE TIME 11.00 SECS
ELAPSED TIME 38.15 SECS
EXECUTION TERMINATED

5. PROGRAMME I.

5.2 PROGRAMME LISTING

THIS SECTION CONTAINS A LISTING OF THE SOURCE CODE OF PROGRAMME I.

```

1 (SUBRG):(STRG):
2 I:PROCEDURE OPTIONS(MAIN);
3
4 DCL 1 RECORD BASED(PTP),
5
6 2 (DESN0 CHAR(8), NAME CHAR(40)),
7
8 2 GENERAL,
9
10 3 (PNAMF CHAR(17), (TITLE,YC) CHAR(2), (SEX,REG) CHAR(1)),
11
12 3 (DDBC,MART,SET,POCC,SOCC,OV25,REL,CNFI) CHAR(1)),
13
14 3 (DDBR,TFT(2,2)) CHAR(6),AUTH CHAR(19),AUTHNO CHAR(1)),
15
16 3 FPOS CHAR(4),
17
18 2 EDUCATION,
19
20 3 (SCHND CHAR(2), SCH(10) CHAR(5)),
21
22 3 (QUALNO CHAR(2), QUAL(30) CHAR(10)),
23
24 3 (UNCOL(2) CHAR(21), FPT(1) CHAR(2), FT(2,2) CHAR(6)),
25
26 3 (UNOTH(2) CHAR(21), DEG(2) CHAR(3), HPCD(2) CHAR(4)),
27
28 3 (SUB(2) CHAR(36), DAT(2) CHAR(6)),
29
30 3 (ADIP CHAR(30), ADIPC CHAR(1)),
31
32 3 DDIPC CHAR(1),
33
34 3 (NQ(2) CHAR(30), OGC(2) CHAR(4)),
35
36 3 ATN CHAR(1),
37
38 2 COURSE,
39
40 3 (LEN CHAR(1), CGDES(4) CHAR(3)),
41
42 3 (ILE,DC(4,24:64)) CHAR(1)),
43
44 3 (DCI(4,26:30) CHAR(2)),
45
46 3 (IDC46(4),DC49(4)) CHAR(3)),
47
48 2 FINALS,
49
50 3 (ITC,WS,BE,SUBCAR) CHAR(1)),
51
52 2 ANNPRG,
53
54 3 AP CHAR(802),
55
56 3 (LEAP,FK(10,2)) FIXED BINARY),
57
58 2 INTEL,
59
60 3 (INTELB CHAR(2),(VALUES(2,6), DSCALE(2)) FIXED BINARY),
61
62 3 ((AH4(2,3),PF16(2,16)) FIXED BINARY),
63
64 3 STEN(2,16) FIXED BINARY;
65
66 /-----*/
67
68 DCL (VF(0:60,6),DSF(0:300),AHF(0:130,3),PFF(0:26,16),SFO(0:10,16))
69
70 FIXED BINARY;
71
72 DCL ((VT,VST)(6),(DST,DSST),(AHT,AHST)(2),(PFT,PFTST)(16),
73
74 (SST,SSST)(16)) FLOAT DECIMAL(15);
75
76 DCL LOP(20) CHAR(1), (RLAB,CLAB)(20) FIXED BINARY,
77
78 RITEM(20) CHAR(20) VARYING;
79
80 DCL MNT(16) FIXED BINARY INITIAL(20,13,26,26,26,20,26,
81
82 20,20,26,20,26,20,20,20,26);
83
84 DCL (FILN1,FILN2,WD,DT,CESL(1000)) CHAR(8), YE CHAR(4), WRL
85
86 CHAR(3), (YT,WCR,PI) CHAR(1), (KT,OPT,YR,K) FIXED BINARY, (WB,LB,
87
88 RB,SUPP,WPB,LPB,RPB,B) BIT(1), REQUEST CHAR(400) VARYING,
89
90 (DESN03,DESN02) CHAR(8);
91
92 /-----*/
93
94 DCL STUDENT FILE RECORD ENV(F(2416));
95
96 /-----*/
97
98 ITIMS:PROC;
99
100 DCL K FIXED BINARY;
101
102 DO K=1 TO 6;
103
104 IF VALUES(YR,K)>=0 & VALUES(YR,K)<=60 THEN
105
106 DO; VT(K)=VT(K)+VALUES(YR,K);
107
108
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116 SPNT:PROC;
117 DCL I FIXED BINARY;
118 PUT SKIP(3);
119 DO I=1 TO KT;
120 IF MOD(I-1,10)=0 THEN PUT EDIT(DES(1))(SKIP,X(3),A(8)); ELSE
121 PUT EDIT(DES(1))(X(3),A(8));
122 END;
123 END;
124 /*****
125 PRINT:PROC;
126 IF MOD(KT-1,25)=0 THEN
127 DO; PUT ENIT('D.E.S.NO','(-----VALUES-----)','(D.SCALE)',
128 '(--A.H.4--)','(-----PF.16-----)')
129 ) (PAGE,COL(1),A(8),4(X(4),A));
130 PUT SKIP;
131 END;
132 PUT EDIT(DESNO,VALUES(YR,*),DS(16(YR,*),PF(16(YR,*))
133 (SKIP,COL(1),A,X(3),6(X(1),F(2)),X(7),F(3),X(6),2(X(1),F(2)),X(2),
134 F(3),X(3),16(X(1),F(2)))));
135 PUT EDIT(STEN(YR,*))(SKIP,COL(60),16(X(1),F(2)));
136 END;
137 /*****
138 ITP:PROC;
139 DCL K FIXED BINARY;
140 DCL PFK(16) CHAR(2) INITIAL('A','B','C','E','F','G','H',
141 'I','L','M','N','O','Q1','Q2','Q3','Q4');
142 VST=SQRT((VST-(VT**2/KT))/KT);
143 DSST=SQRT((DSST-(DST**2/KT))/KT);
144 AHST=SQRT((AHST-(AHT**2/KT))/KT);
145 PFST=SQRT((PFST-(PFT**2/KT))/KT);
146 SSST=SQRT((SSST-(SST**2/KT))/KT);
147 PUT EDIT('TEST','TOTAL ( MEAN )ST.DEV','TOTAL ( MEAN )ST.DEV')
148 (SKIP(2),COL(7),A,COL(20),A,X(5),A);
149 PUT EDIT('VALUES')(SKIP(2),COL(5),A);
150 DO K=1 TO 6;
151 PUT EDIT('(','K,')')(COL(11),A,F(2),A);
152 PUT EDIT(VT(K),(',(VT(K)/KT),')',VST(K))
153 (X(2),F(8),A,F(6,2),A,F(6,2));
154 END;
155 PUT EDIT('C.SCALE','(SKIP(2),COL(4),A);
156 PUT EDIT(DST,(',(DST/KT),')',DSST)
157 (X(2),F(8),A,F(6,2),A,F(6,2));
158 PUT EDIT('A.H.4')(SKIP(2),COL(6),A);
159 DO K=1,2;
160 PUT EDIT('(','K,')')(COL(11),A,F(2),A);
161 PUT EDIT(AHT(K),(',(AHT(K)/KT),')',AHST(K))
162 (X(2),F(8),A,F(6,2),A,F(6,2));
163 END;
164 PUT EDIT('STEN SCORES')(X(13),A);
165 PUT EDIT('P.F.16')(SKIP(2),COL(5),A);
166 DO K=1 TO 16;
167 PUT EDIT('(','PFK(K),')')(COL(11),A,A(2),A);
168 PUT EDIT(PFT(K),(',(PFT(K)/KT),')',PFST(K))
169 (X(2),F(8),A,F(6,2),A,F(6,2));
170 PUT EDIT(SST(K),(',(SST(K)/KT),')',SSST(K))
171 (X(2),F(8),A,F(6,2),A,F(6,2));
172 END;
173 END;
174 /*****
175 ITPREQ:PROC;
```

```
/* D.E.S.NO. OUTPUT ROUTINE
/*****
/*
/* OUTPUT DES.NCS, TEN PER LINE
/*
/*
/*****
/* RECORD OUTPUT ROUTINE
/*****
/* OUTPUT TITLES
/*
/*
/*
/* OUTPUT RECORDS 25 PER PAGE
/*
/*
/*
/*****
/* TOTALS PRINT ROUTINES
/*****
/*
/* CALCULATE VALUES ST.DEVIATIONS
/*
/* CALCULATE D.SCALE ST.DEVIATIONS
/* CALCULATE A.H.4 ST.DEVIATIONS
/* CALCULATE P.F.16 ST.DEVIATIONS
/* CALCULATE STEN ST.DEVIATIONS
/* OUTPUT TITLES
/*
/* OUTPUT VALUES
/*
/*
/*
/* OUTPUT D.SCALE
/*
/*
/* OUTPUT A.H.4
/*
/*
/* OUTPUT P.F.16 AND STENS
/*
/*
/*
/*****
/* FREQUENCY TABLE PRINT ROUTINES
/*
```

```

176 DCL (I,J,K) FIXED BINARY;
177 PUT EDIT('VALUES', 'SCORE', 'FREQUENCY')(SKIP(2),COL(1),A,SKIP,
178 COL(2),A,COL(25),A);
179 PUT SKIP;
180 DO I=0 TO 60;
181 NO J=1 TO 6;
182 IF VF(I,J)>0 THEN
183 DO; PUT EDIT(I,(VF(I,K) DO K=1 TO 6))(SKIP,COL(5),F(2),
184 6(X(4),F(4)));
185 GOTO L1;
186 END;
187
188 L1: END;
189 PUT EDIT('D.SCALE', 'SCORE', 'FREQUENCY')(PAGE,COL(1),A,SKIP,COL(3),
190 A,COL(20),A);
191 PUT SKIP;
192 DO I=C TO 300;
193 IF DSF(I)>0 THEN PUT EDIT(I,DSF(I))(SKIP,COL(5),F(3),COL(21),
194 F(4));
195 END;
196 PUT EDIT('A.H.4', 'SCORE', 'FREQUENCY')(PAGE,COL(1),A,SKIP,COL(1),A,
197 COL(20),A);
198 PUT SKIP;
199 DO I=1 TO 130;
200 IF AHF(I,1)>0 | AHF(I,2)>0 THEN
201 PUT EDIT(I,AHF(I,1),AHF(I,2))(SKIP,COL(3),F(3),
202 X(7),2(X(4),F(4)));
203 END;
204 PUT EDIT('P.F.16', 'SCORE', 'FREQUENCY')(PAGE,COL(1),A,SKIP,COL(2),
205 A,COL(50),A);
206 PUT SKIP;
207 DO I=C TO 26;
208 PUT EDIT(I)(SKIP,COL(5),F(2));
209 DO J=1 TO 16;
210 IF I<=MNT(J) THEN
211 PUT EDIT(PFF(I,J))(X(3),F(3)); ELSE
212 PUT EDIT('')(A);
213 END;
214
215 END;
216 PUT EDIT('STEN', 'SCORE', 'FREQUENCY')(SKIP(4),COL(3),A,COL(2),A,
217 COL(50),A);
218 PUT SKIP;
219 DO I=0 TO 10;
220 PUT EDIT(I)(SKIP,COL(5),F(2));
221 DO J=1 TO 16;
222 PUT EDIT(SF(I,J))(X(3),F(3));
223 END;
224
225 END;
226
227 /*****
228 TRANS:PROC(REQUEST,LOP,CLAB,RLAB,RLAB,ITEM,K);
229 DCL (CLAB,RLAB)(20) FIXED BINARY, LOP(20) CHAR(1),
230 RITEM(20) CHAR(20) VARYING;
231 DCL REQUEST CHAR(400) VARYING;
232 DCL PCOND(6) CHAR(2) VARYING INITIAL(' ',' ','>', '>', '<', '<');
233 DCL X1 CHAR(1),LR CHAR(3),(I,J,K,LK,LL,LB,NB) FIXED BINARY;
234 LL=LENGTH(REQUEST);
235 K=0; LK=1;
236 DO I=1 TO LL;
237 X1=SUBSTR(REQUEST,I,1);

```

[illegible]

```

236 IF X1=' ' THEN
237 DO; LB=I;
238 GOTO L61;
239 END; ELSE
240 IF X1='&' | X1='|' THEN
241 DO; LK=LK+1;
242 LOP(LK)=X1;
243 GOTO L61;
244 END; ELSE
245 DO J=1,3,5;
246 IF X1=PCOND(J) THEN GOTO L62;
247 END;
248 GOTO L61;
249 NB=INDEX(SUBSTR(REQUEST,I),' ');
250 IF SUBSTR(REQUEST,I-1,1)='- ' THEN
251 DO; K=K+1;
252 CLAB(K)=J+1;
253 LR=SUBSTR(REQUEST,LB+1,I-LB-2);
254 RLAB(K)=LR;
255 END; ELSE
256 DO; K=K+1;
257 CLAB(K)=J;
258 LR=SUBSTR(REQUEST,LB+1,I-LB-1);
259 RLAB(K)=LR;
260 END;
261 RITEM(K)=SUBSTR(REQUEST,I+1,NB-2);
262 I=I+NB-1;
263 L61: END;
264 DO I=1 TO K;
265 IF RLAB(I)<1 | RLAB(I)>66 THEN
266 DO; PUT EDIT('ERROR...ITEM',RLAB(I),'NOT INCLUDED')
267 (SKIP,COL(1),A,X(1),F(2),X(1),A);
268 DO J=1 TO K-1;
269 LOP(J)=LOP(J+1);
270 RLAB(J)=RLAB(J+1);
271 CLAB(J)=CLAB(J+1);
272 RITEM(J)=RITEM(J+1);
273 K=K-1;
274 END;
275 END;
276 END;
277
278 END;
279 /*****
280 LOCST:PROC(YR,LOP,CLAB,RLAB,RITEM,K) RETURNS(BIT(1));
281 DCL LOP(20) CHAR(1), (CLAB,RLAB)(20) FIXED BINARY, RITEM(20)
282 CHAR(20) VARYING;
283 ECL REQI CHAR(12),REQM CHAR(20) VARYING;
284 DCL ITEM CHAR(20) VARYING, YR FIXED BINARY;
285 DCL (K,I,J,OS) FIXED BINARY;
286 /*****
287 FIND:PROC(YR,ITEM,LR,REQI);
288 DCL (ITEM CHAR(20), XVAR CHAR(3)) VARYING, (KC,LR,I,J,YR) FIXED
289 BINARY, X2 CHAR(2), R(66) LABEL, REQI CHAR(12), ST CHAR(1) DEFINED
290 REQI POS(2), SYF CHAR(2) DEFINED REQI POS(3), SYT CHAR(2) DEFINED
291 REQI POS(5), QY CHAR(2) DEFINED REQI POS(2), QE CHAR(3) DEFINED
292 REQI POS(4), QC CHAR(3) DEFINED REQI POS(7), QG CHAR(1) DEFINED
293 REQI POS(10), QR CHAR(1) DEFINED REQI POS(11);
294 IF QE='- ' THEN QE=TRANSLATE(QE,' ','*');
295 IF LR>=26 & LR<=35 THEN I=LE;
296 GOTO R(LR);
297
298 /** CONVERSION **/
299
300 /** TEST FOR BLANK
301 -> RESET LOWER BOUND
302 -> BRANCH FOR NEXT CHARACTER
303 /**
304 /** TEST FOR LOGICAL OPERATOR
305 -> UPDATE LOGICAL OPERATOR COUNTER
306 -> ADD LOGICAL OPERATOR TC LCP VECTOR
307 -> BRANCH FOR NEXT CHARACTER
308 /**
309 /** TEST FOR RELATIONAL OPERATOR
310 -> BRANCH IF FOUND
311 /**
312 /** BRANCH FOR NEXT CHARACTER
313 LOCATE NEXT BLANK
314 /** TEST RELATIONAL OP. FOR 'NOT' CASE
315 -> UPDATE SIMPLE REQUEST COUNTER
316 -> RECORD RELATIONAL OP. NUMBER
317 -> REMOVE ITEM NUMBER
318 -> RECORD ITEM NUMBER
319 RELATIONAL OP. NOT 'NOT' CASE
320 /** -> UPDATE SIMPLE REQUEST COUNTER
321 -> RECORD RELATIONAL OP. NUMBER
322 -> REMOVE ITEM NUMBER
323 -> RECORD ITEM NUMBER
324 /**
325 /** RECORD ITEM VALUE
326 RESET CONTROL VARIABLE TO NEXT BLANK
327 /** BRANCH FOR NEXT CHARACTER
328 /**
329 /** TEST ITEM NUMBERS OF ALL SIMPLE REQUESTS
330 -> CLASS G ERROR/WARNING
331 /**
332 /** OVERWRITE SIMPLE REQUEST
333 -> LOGICAL OPERATOR
334 -> ITEM NUMBER
335 -> RELATIONAL OPERATOR
336 -> ITEM VALUE
337 -> RESET SIMPLE REQUEST COUNTER
338 /**
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296 R(1):X2=SUBSTR(TTFT(1,1),5,2); I=X2; /* CCVERSION */
297 X2=SUBSTR(DOB,5,2); J=X2; /* CCVERSION */
298 KC=I-J;
299 GOTO L1;
300 R(2):ITEM=SEX; RETURN; R(3):ITEM=MART; RETURN;
301 R(4):ITEM=SET; RETURN; R(5):ITEM=REG; RETURN;
302 R(6):ITEM=PCCC; RETURN; R(7):ITEM=SCCC; RETURN;
303 R(8):ITEM=QV25; RETURN; R(9):ITEM=REL; RETURN;
304 R(10):ITEM=CONF; RETURN; R(11):ITEM=AUTH; RETURN;
305 R(12):ITEM=AUTHNO; RETURN; R(13):ITEM=FPS; RETURN;
306 R(14):ITEM=TTFT(1,1); RETURN; R(15):ITEM=UNCOL(1); RETURN;
307 R(16):ITEM=UNOTH(1); RETURN; R(17):ITEM=DEG(1); RETURN;
308 R(18):ITEM=SCHNO; RETURN;
309 R(19):KC=C; QS=SCHNO; /* CONVERSION */
310 DO I=1 TO QS;
311 IF ST='*' | SUBSTR(SCH(I),1,1)=ST THEN
312 IF SYF='**' | SUBSTR(SCH(I),2,2)=SYF THEN
313 IF SYT='**' | SUBSTR(SCH(I),4,2)=SYT THEN KC=KC+1;
314 END;
315 GOTO L1;
316 R(20):ITEM=QUALNO; RETURN; /* CONVERSION */
317 R(21):KC=C; QS=QUALNO;
318 DO I=1 TO QS;
319 IF QY='**' | SUBSTR(QUAL(I),1,2)=QY THEN
320 IF QE='**' | SUBSTR(QUAL(I),3,3)=QE THEN
321 IF QC='**' | SUBSTR(QUAL(I),6,3)=QC THEN
322 IF QG='**' | SUBSTR(QUAL(I),9,1)=QG THEN
323 IF QR='*' | SUBSTR(QUAL(I),10,1)=QR THEN KC=KC+1;
324 END;
325 GOTO L1;
326 R(22):ITEM=ATO; RETURN; R(23):ITEM=LEN; RETURN;
327 R(24):I=ST; /* CONVERSION */
328 ITEM=CODES(I); RETURN; R(25):ITEM=DC46(1); RETURN;
329 R(26):ITEM=DC(I,25); RETURN; R(27):ITEM=DC(I,34); RETURN;
330 R(28):ITEM=DC(I,35); RETURN; R(29):ITEM=DC(I,36); RETURN;
331 R(30):ITEM=DC(I,37); RETURN; R(31):ITEM=DC(I,38); RETURN;
332 R(32):ITEM=DC(I,41); RETURN; R(33):ITEM=DC(I,42); RETURN;
333 R(34):ITEM=DC(I,59); RETURN; R(35):ITEM=DC(I,64); RETURN;
334 R(36):XVAR=SUBSTR(REQ1,5,INDEX(REQ1,'')-5);
335 I=XVAR; /* CONVERSION */
336 IF FK(I,1)=0 THEN ITEM=SUBSTR(AP,FK(I,1),FK(I,2)-1); ELSE
337 ITEM=''; RETURN;
338 R(37):ITEM=TC; RETURN;
339 R(38):ITEM=MS; RETURN;
340 R(39):ITEM=BE; RETURN;
341 R(40):ITEM=SUBCAR; RETURN;
342 R(41):R(42):R(43):R(44):R(45):R(46):KC=VALUES(YR,LR-40); GOTO L1;
343 R(47):KC=DSCALE(YR); GOTO L1;
344 R(48):R(49):R(50):KC=AH4(YR,LR-47); GOTO L1;
345 R(51):R(52):R(53):R(54):R(55):R(56):KC=PF16(YR,LR-50); GOTO L1;
346 R(57):R(58):R(59):R(60):R(61):R(62):KC=PF16(YR,LR-50); GOTO L1;
347 R(63):R(64):R(65):R(66):KC=PF16(YR,LR-50);
348 L1: ITEM=CHAR(KC);
349 END;
350 /*****
351 TEST:PROC(ITEM,CND,REQ) RETURNS(BIT(1));
352 DCL (ITEM,REQ,X20) CHAR(20) VARYING, CND FIXED BINARY;
353 DCL C(6) LABEL INITIAL(C1,C2,C3,C4,C5,C6);
354 X20=ITEM; ITEM=((20)'); SUBSTR(ITEM,21-LENGTH(X20))=X20;
355 X20=REQ; REQ=((20)'); SUBSTR(REQ,21-LENGTH(X20))=X20;

```

```

/* -> AGE, CALCULATE AS:
/* -> 'YEAR OF ADMISSION - YEAR OF BIRTH'
/*
/* -> BRANCH TO CCVERSION ROUTINE
/* -> SEX, MARITAL STATUS
/* -> SETTLEMENT, GEOGRAPHICAL REGION
/* -> PARENT/GUARDIAN/STUDENT OCCUPATION
/* -> DVFR 25 OCCUPATION, RELIGION
/* -> CONFIRMATION, AUTHORITY/COUNTRY
/* -> AUTHORITY NUMBER, FAMILY POSITION
/* -> TEACHERS TRAINING, UNIV OR COLLEGE 1
/* -> UNIV OR OTHER 1, DEGREE AWARDED
/* -> NC, CF SCHCLS ATTENDED
/* -> SCHOOLS
/*
/* -> SCHCL TYPE
/* -> SCHOOL YEAR FROM
/* -> SCHOOL YEAR TO
/*
/* -> BRANCH TO CONVERSION ROUTINE
/* -> NO. OF QUALIFICATIONS RECORDED
/* -> QUALIFICATIONS
/*
/* -> QUALIFICATION YEAR
/* -> QUALIFICATION EXAM
/* -> QUALIFICATION CODE
/* -> QUALIFICATION GRADE
/* -> QUALIFICATION RESULT
/*
/* -> BRANCH TO CONVERSION ROUTINE
/* -> A.T.C, CCURSE LENGTH
/* -> SET CODES REQUIRED
/* -> COURSE CODES
/* -> DETAILS OF COURSE
/*
/* -> ANNUAL PROGRESS VECTOR
/*
/* -> TEACHERS' CERTIFICATE
/* -> WING SCIENCE
/* -> B.ED.
/* -> SUBSEQUENT CAREER
/* -> VALUES SCORES
/* -> D.SCALE SCORE
/* -> A.H.4 SCORES
/* -> P.F.16 SCORES
/*
/* CONVERSION ROUTINE
/*
/* ****
/* SIMPLE REQUEST TEST ROUTINE
/* ****
/* VARIABLE DECLARATIONS
/*
/* RIGHT JUSTIFY RECORD RESPONSE
/*
/* RIGHT JUSTIFY REQUIRED VALUE

```

```

356      GOTO C(COND);
357      IF ITEM=REQU THEN RETURN('1'B); ELSE RETURN('0'B);
358      C2: IF ITEM=REQU THEN RETURN('1'B); ELSE RETURN('0'B);
359      C3: IF ITEM>REQU THEN RETURN('1'B); ELSE RETURN('0'B);
360      C4: IF ITEM>REQU THEN RETURN('1'A); ELSE RETURN('0'B);
361      C5: IF ITEM<REQU THEN RETURN('1'B); ELSE RETURN('0'B);
362      C6: IF ITEM<REQU THEN RETURN('1'B); ELSE RETURN('0'B);
363      END;
364      DCL TEST ENTRY(,) RETURNS(BIT(1));
365      /*****
366      DO I=1 TO K;
367          IF RLAB(I)=4 | RLAB(I)=6 | RLAB(I)=7 | RLAB(I)=9 | RLAB(I)=19
368             | RLAB(I)=21 | RLAB(I)=24 | RLAB(I)=36 | RLAB(I)=40 THEN
369              REQI=SUBSTR(RITEM(I),INDEX(RITEM(I),'('));
370              IF RLAB(I)=4 | RLAB(I)=6 | RLAB(I)=7 | RLAB(I)=9 | RLAB(I)=36
371                 | RLAB(I)=40 THEN IF SUBSTR(REQI,2,2)=SUBSTR(TFT(1,1),5,2)
372                 THEN IF I+1<K & LOP(I+1)=1 THEN GOTO L66; ELSE RETURN('0'B);
373              CALL FIND(YR,ITEM,RLAB(I),REQI);
374              IF RLAB(I)=4 | RLAB(I)=6 | RLAB(I)=7 | RLAB(I)=9 | RLAB(I)=19
375                 | RLAB(I)=21 | RLAB(I)=24 | RLAB(I)=36 | RLAB(I)=40 THEN
376                  REQM=SUBSTR(RITEM(I),1,INDEX(RITEM(I),'(')-1); ELSE
377                  REQM=TRANSLATE(RITEM(I),' ','');
378                  IF TEST(ITEM,CLAB(I),REQM) THEN
379                      DO; DO J=I+1 TO K;
380                          IF LOP(J)=1 THEN
381                              DO: I=J-1;
382                                  GOTO L66;
383                      END;
384                      RETURN('1'B);
385                  END; ELSE
386                      IF I+1<K & LOP(I+1)=1 THEN GOTO L66; ELSE RETURN('0'B);
387                  END;
388      L66: END;
389      END;
390      DCL LOCTST ENTPY(,,,,) RETURNS(BIT(1));
391      /*****
392      ON ENDFILE(SCARDS) GOTO L09;
393      L39: GET EDIT(FILN1,FILN2,YE)(CCL(1),A(8),X(1),A(8),X(1),A(4));
394      GET LIST(OPT);
395      IF OPT<1 | OPT>4 THEN
396          DO; PUT EDIT('OPTION INVALID....PROGRAM TERMINATED')
397              (SKIP,COL(1),A);
398              GOTO L09;
399      END;
400      WRL='XXX'; WCR='X'; YT='F'; PI='0'; REQUEST=''; B='0'B;
401      GET DATA;
402      IF SUBSTR(WRL,1,1)='1' THEN WB='1'B; ELSE WB='0'B;
403      IF SUBSTR(WRL,1,1)='2' THEN WPB='1'B; ELSE WPB='0'B;
404      IF SUBSTR(WRL,2,1)='1' THEN RB='1'B; ELSE RB='0'B;
405      IF SUBSTR(WRL,2,1)='2' THEN RPB='1'B; ELSE RPB='0'B;
406      IF SUBSTR(WRL,3,1)='1' THEN LB='1'B; ELSE LB='0'B;
407      IF SUBSTR(WRL,3,1)='2' THEN LPB='1'B; ELSE LPB='0'B;
408      IF YT='F' THEN YR=1; ELSE IF YT='L' THEN YR=2; ELSE YR=1;
409      PUT EDIT('BCRS...BEDE COLLEGE RECORD SYSTEM','PROGRAMME I',
410      'OPTION REQUESTED',OPT,'WEAR REQUESTED',YE)(PAGE,COL(1),A,
411      SKIP(2),COL(1),A,COL(1),A,COL(32),F(2),COL(1),A,COL(30),A);
412      PUT SKIP(2);
413      IF WRL='XXX' THEN PUT EDIT('WRL REQUESTED',WRL)
414      (COL(1),A,COL(31),A); ELSE WRL='000';
415      IF WCR='X' THEN PUT EDIT('WCR REQUESTED',WCR)(COL(1),A,COL(33),

```

```

/* BRANCH TO REQUIRED TEST                                     /*
/* -> CASE '='                                              /*
/* -> CASE '<'                                             /*
/* -> CASE '>'                                             /*
/* -> CASE '<>'                                            /*
/* -> CASE '<'                                             /*
/* -> CASE '<'                                             /*
/*
/*
/* *****
/* CCONSIDER FIRST/NEXT SIMPLE REQUEST                      /*
/* -> LOCATE EXCEPTIONAL CASES 1.                          /*
/*
/* -> SEPARATE REQUIRED ITEM                                /*
/* -> LOCATE EXCEPTIONAL CASES 2.                          /*
/* -> TEST YEARS                                           /*
/* -> BRANCH OR REJECT RECCRD                             /*
/* -> FIND REQUIRED FIELD VALUE                            /*
/* -> LOCATE EXCEPTIONAL CASES 3.                          /*
/*
/* -> SEPARATE REQUIRED ITEM                                /*
/* -> CLEAR IMBEDDED BLANKS                               /*
/* -> TEST SIMPLE REQUEST                                  /*
/*
/* -> TEST NEXT LOGICAL OPERATOR                           /*
/*
/* -> BRANCH FOR NEXT SIMPLE REQUEST                       /*
/*
/* -> ACCEPT RECORD                                         /*
/*
/* -> BRANCH OR REJECT RECCRD                             /*
/* BRANCH FOR NEXT SIMPLE REQUEST                         /*
/*
/*
/* *****
/* BRANCH ON ENDFILE (SCARDS)                              /*
/* INPUT OPTION PARAMETER CARD                             /*
/* INPUT OPTICN                                             /*
/* TEST OPTION                                              /*
/* -> CLASS A ERROR/WARNING                                 /*
/*
/* -> BRANCH TO PROGRAMME TERMINATION                     /*
/*
/* INITIALISE OPTION PARAMETERS                            /*
/* INPUT OPTION PARAMETERS                                  /*
/* VERIFY OPTION PARAMETERS                                 /*
/* -> PARAMETER WRL                                         /*
/*
/*
/*
/*
/* -> PARAMETER YT                                          /*
/* OUTPUT TITLES                                           /*
/*
/*
/* OUTPUT OPTION PARAMETERS IN EFFECT                       /*
/* -> WCP                                                  /*

```

```
416 A); ELSE MCR='*';
417 PUT EDIT('YEAR OF TEST',YT)(CCL(1),A,CCL(33),A);
418 IF PI='0' THEN PUT EDIT('PRINT INDICATOR',PI)
419 (COL(1),A,CCL(33),A);
420 PUT SKIP(4);
421 IF REQUEST='*' THEN GOTO L00;
422 /*-----*/
423 L1234:OPEN FILE(STUDENT) INPLT TITLE(FILN1);
424 ON ENDFILE(STUDENT)
425 BEGIN; DT=DATE;
426 DT=SUBSTR(DT,4,2) || '/' || SUBSTR(DT,1,2) || '/' ||
427 SUBSTR(DT,7,2);
428 IF OPT=1 || OPT=2 THEN
429 DO; IF OPT=1 THEN PUT EDIT(YE,'FILE.....INTELLIGENCE ',
430 'TEST TOTALS (MEANS) ST. DEV')(SKIP(2),A(4),X(1),A,A);
431 IF OPT=2 THEN PUT EDIT(YE,'FILE.....INTELLIGENCE ',
432 'TEST FREQUENCY COUNTS')(SKIP(2),A(4),X(1),A,A);
433 PUT EDIT(KT,'STUDENTS INCLUDED')
434 (SKIP(3),COL(1),F(4),X(1),A);
435 IF KT=0 THEN GOTO L21;
436 IF ~SUPP THEN CALL SPNT;
437 PUT PAGE;
438 IF OPT=1 THEN CALL ITPMTS; ELSE CALL ITPFREQ;
439 END; ELSE
440 IF OPT=3 THEN
441 DO; IF PI='1' THEN
442 DO; PUT EDIT(YE,'FILE.....INTELLIGENCE TESTS',KT,
443 'STUDENTS INCLUDED')(PAGE,COL(1),A,X(1),A,X(1),
444 F(4),X(1),A);
445 IF ~SUPP THEN CALL SPNT;
446 END;
447 END; ELSE
448 IF OPT=4 THEN
449 DO; PUT EDIT('TOTALS,MEANS,STANDARD DEVIATIONS AND ',
450 'FREQUENCY CCUNTS FOR REQUEST',REQUEST)
451 (SKIP(2),COL(1),A,A,X(2),A);
452 PUT EDIT(KT,'STUDENTS INCLUDED')
453 (SKIP(3),COL(1),F(4),X(1),A);
454 IF KT=0 THEN GOTO L51;
455 IF ~SUPP THEN CALL SPNT;
456 PUT PAGE;
457 CALL ITPMTS;
458 PUT PAGE;
459 CALL ITPFREQ;
460 END;
461 L51: PUT EDIT('DATE OF LISTING',DT)(SKIP(2),COL(1),A,X(1),A);
462 CLOSE FILE(STUDENT);
463 GOTO L39;
464 END;
465 KT=0; DESL=' '; SUPP='0'B;
466 IF OPT=1 THEN
467 DO; VT=0; VST=0; DST=0; DSST=0; AHT=0; AHST=0; PFT=0; PFST=0;
468 SST=0; SSST=0;
469 END; ELSE
470 IF OPT=2 THEN
471 DO; VF=0; DSF=0; AHF=0;
472 PFF=0; SF=0;
473 END; ELSE
474 IF OPT=4 THEN
475 DO; LOP=' '; CLAB=0; RLAB=0; RITEM=' '; K=0;
```

```
/*
/* -> YT
/* -> PI
/*
/* BRANCH IF SPECIAL CASE 'REQUEST ='
/*-----*/
/* OPTIONS 1,2,3 AND 4
/* SET ENDFILE (STUDENT) ROUTINE
/* -> CALCULATE DATE
/*
/* -> OPTIONS 1 AND 2
/* -> OUTPUT TITLES FOR OPTION 1
/* -> OUTPUT TITLES FOR OPTION 2
/* -> OUTPUT SAMPLE SIZE 'KT'
/*
/* -> BRANCH IF KT=0
/* -> TEST SUPPRESSION BIT, OUTPUT DES.NOS.
/*
/* -> CALL REQUIRED OUTPUT ROUTINE
/*
/* -> OPTION 3
/* -> TEST PRINT INDICATOR, CASE PI ~1
/* -> OUTPUT TITLES
/*
/* -> TEST SUPPRESSION BIT, OUTPUT DES.NOS.
/*
/* -> OPTION 4
/* -> OUTPUT TITLES
/*
/* -> OUTPUT SAMPLE SIZE 'KT'
/*
/* -> BRANCH IF KT=0
/* -> TEST SUPPRESSION BIT, OUTPUT DES.NOS.
/*
/* -> OUTPUT TOTALS, MEANS AND ST.DEVIATIONS
/*
/* -> OUTPUT FREQUENCIES
/*
/* -> OUTPUT DATE OF LISTING
/* -> CLOSE FILE
/* -> BRANCH TO PROGRAMME CCNTRL SECTION
/* END OF ENDFILE ROUTINE
/* INITIALISE VARIABLES ALL OPTIONS
/* INITIALISE VARIABLE OPTION 1
/*
/*
/* INITIALISE VARIABLES OPTION 2
/*
/*
/* INITIALISE VARIABLES OPTION 4
/*
```

```

476 IF SUBSTR(REQUEST,2,1)~=' ' THEN
477 CALL TRANS(REQUEST,LOP,CLAB,PLAB,RITEM,K);
478 IF K=0 THEN
479 DO; CLOSE FILE(STUDENT);
480 GOTO L39;
481 END;
482 VT,VST=0; DST,DST=0; AHT,AHST=0; PFT,PFST=0; SST,SSST=0;
483 VF=0; DSF=0; AHF=0; PFF=0; SF=0;
484
485 L31: READ FILE(STUDENT) SET(PTR);
486 IF SUBSTR(INTEL8,YR,1)~='*' THEN
487 DO; IF OPT=3 THEN PUT EDIT(DESN, 'HAS NO CORRESPONDING DATA')
488 (COL(1),A,X(1),A);
489 GOTO L31;
490 END;
491 IF ~WB & SUBSTR(TTFT(2,1),1,4)='WITH' THEN
492 DO; IF WPB THEN
493 DO; WD=SUBSTR(TTFT(1,2),1,2) || '/' || SUBSTR(TTFT(1,2),
494 3,2) || '/' || SUBSTR(TTFT(1,2),5,2);
495 PUT EDIT(DESN, 'WITHDREW ON',WD)(COL(1),A,2(X(1),A));
496 END;
497 GOTO L31;
498 END; ELSE
499 IF ~LB & SUBSTR(TTFT(2,1),1,4)='LEFT' THEN
500 DO; IF LPB THEN
501 DO; WD=SUBSTR(TTFT(1,2),1,2) || '/' || SUBSTR(TTFT(1,2),
502 3,2) || '/' || SUBSTR(TTFT(1,2),5,2);
503 PUT EDIT(DESN, 'LEFT ON',WD)(COL(1),A,2(X(1),A));
504 END;
505 GOTO L31;
506 END; ELSE
507 IF ~RB & SUBSTR(TTFT(2,1),1,4)=' ' THEN
508 DO; IF RPB THEN PUT EDIT(DESN, 'AT COLLEGE')(COL(1),A,X(1),A);
509 GOTO L31;
510 END; ELSE
511 IF WB & WCR~='*' & WCR=SUBSTR(TTFT(2,1),6,1) THEN GOTO L31;
512 IF OPT=1 | OPT=2 | OPT=3 |
513 | OPT=4 & LOCTST(YR,LOP,CLAB,PLAB,RITEM,K) THEN
514 DO; KT=KT+1;
515 IF KT>100 THEN SUPP='1'B;
516 IF ~SUPP THEN DESL(KT)=DESN;
517 IF OPT=1 | OPT=4 THEN
518 CALL ITTMS;
519 IF OPT=2 | OPT=4 THEN
520 CALL ITFREQ;
521 IF OPT=3 & PI='1' THEN CALL PRINT;
522 END;
523 GOTO L31;
524
525 /*-----*/
526 L00: OPEN FILE(STUDENT) INPUT TITLE(FILN1);
527 ON ENDFILE(STUDENT)
528 BEGIN; CLOSE FILE(STUDENT);
529 OPEN FILE(STUDENT) INPUT TITLE(FILN1);
530 GOTO L01;
531 END;
532 VT=0; VST=0; DST=0; DSST=0; AHT=0; AHST=0; PFT=0; PFST=0;
533 VF=0; DSF=0; AHF=0; PFF=0; SF=0; SST=0; SSST=0;
534 DESL=' ' ; KT=0; SUPP='0'B;
535 L02: GET EDIT(DESN2)(COL(1),A(8));
    IF DESN2='*****' THEN

```

```

/* TEST FOR REQUEST
/* TRANSLATE REQUEST
/* TEST NO. OF SIMPLE REQUESTS, IF C THEN
/* -> CLOSE FILE
/* -> BRANCH TO PROGRAMME CONTROL SECTION
/*
/* INITIALISE VARIABLES OPTION 4
/*
/* READ FIRST/NEXT RECORD
/* TEST FOR INTELLIGENCE CAT A
/* -> CLASS L ERROR/WARNING
/*
/* -> BRANCH FOR NEXT RECORD
/*
/* -> TEST FOR WITHDRAWAL
/*
/* -> CALCULATE WITHDRAWAL DATE
/*
/* -> CLASS M ERROR/WARNING
/*
/* -> BRANCH FOR NEXT RECORD
/*
/* -> TEST FOR LEFT
/*
/* -> CALCULATE LEAVING DATE
/*
/* -> CLASS N ERROR/WARNING
/*
/* -> BRANCH FOR NEXT RECORD
/*
/* -> TEST FOR STUDENT AT COLLEGE
/* -> CLASS M ERROR/WARNING
/*
/* -> BRANCH FOR NEXT RECORD
/*
/* -> TEST WITHDRAWAL CODE
/* OPTIONS 1,2,3 OR
/* OPTION 4 WITH REQUEST 'TRUE'
/* -> UPDATE COUNTER
/* -> TEST COUNTER AND SET SUPPRESSION BIT
/* -> OPTIONS 1 AND 4
/* -> ACCUMULATE TOTALS
/* -> OPTIONS 2 AND 4
/* -> ACCUMULATE FREQUENCIES
/* -> OPTION 3, PRINT SCORES IF PI=1
/*
/* BRANCH FOR NEXT RECORD.
/*
/* OPTION 4, SPECIAL CASE 'REQUEST='*'
/* SET ENDFILE (STUDENT) ROUTINE
/* -> CLOSE FILE
/* -> OPEN FILE
/* -> BRANCH FOR FIRST RECORD
/* ENDFILE ROUTINE
/* INITIALISE VARIABLES
/*
/* INPUT REQUIRED DES.NO.
/* TEST FOR INPUT TERMINATOR

```

```

536 DO: PUT EDIT('TOTALS,MEANS,STANDARD DEVIATIONS AND FREQUENCY',
537 ' COUNTS FOR REQUEST='*'*'*)(SKIP(2),COL(1),A,A);
538 PUT EDIT(KT,'STUDENTS INCLUDED')(SKIP(3),COL(1),F(4),X(1),A);
539 IF KT=0 THEN GOTO L03;
540 IF ~SUPP THEN CALL SPNT;
541 PUT PAGE;
542 CALL ITPTMS;
543 PUT PAGE;
544 CALL ITPFREQ;
545 DT=DATE;
546 DT=SUBSTR(DT,4,2) || '/' || SUBSTR(DT,1,2) || '/' ||
547 SUBSTR(DT,7,2);
548 PUT EDIT('DATE OF LISTING',DT)(SKIP(2),COL(1),A,X(1),A);
549 CLOSE FILE(STUDENT);
550 GOTO L39;
551 END;
552 L03: READ FILE(STUDENT) SET(PTR);
553 IF DESNO=DESNO2 THEN
554 DO: IF B THEN B='0'B;
555 IF SUBSTR(INTELBY,YP,1)~='*' THEN
556 DO: PUT EDIT(DESNO,'HAS NO CORRESPONDING DATA')
557 (COL(1),A,X(1),A);
558 GOTO L02;
559 END;
560 KT=KT+1;
561 IF KT>1000 THEN SUPP='1'B;
562 IF ~SUPP THEN DESL(KT)=DESNO;
563 CALL ITTMS;
564 CALL ITFREQ;
565 GOTO L02;
566 END; ELSE
567 DO: IF ~B THEN
568 DO: DESNO3=DESNO;
569 B='1'B;
570 END; ELSE
571 DO: IF DESNO=DESNO3 THEN
572 DO: PUT EDIT(DESNO2,'CANNOT BE FOUND...DATA IGNORED')
573 (COL(1),A,X(1),A);
574 B='0'B;
575 GOTO L02;
576 END;
577 END;
578 GOTO L01;
579 END;
580 /*-----*/
581 L09: PUT PAGE;
582 END;

```

```

/* CUTPUT ROUTINE, TITLES
/*
/* -> OUTPUT SAMPLE SIZE 'KT'
/* -> BRANCH IF KT=0
/* -> TEST SUPPRESSION BIT, CUTPUT DES.NO.
/*
/* -> OUTPUT TOTALS, MEANS AND ST.DEVIATIONS.
/*
/* -> OUTPUT FREQUENCIES
/* -> CALCULATE DATE
/*
/* -> OUTPUT DATE
/* -> CLOSE FILE
/* -> BRANCH TO PROGRAMME CONTROL SECTION
/* END OUTPUT ROUTINE
/* READ FIRST/NEXT RECORD
/* TEST RECCRD DES.NO. WITH REQUIRED DES.NO.
/* -> RECORD 'FOUND' ROUTINE, RESET BIT
/* -> TEST FOR INTELLIGENCE DATA
/* -> CLASS L ERROR/WARNING
/*
/* -> BRANCH FOR NEXT REQUIRED DES.NO.
/*
/* -> UPDATE CCOUNTER
/* -> TEST CCOUNTER AND SET SUPPRESSION BIT
/* -> ASSIGN DES.NO. TO LIST
/* -> ACCUMULATE TOTALS
/* -> ACCUMULATE FREQUENCIES
/* -> BRANCH FOR NEXT REQUIRED DES.NO.
/* END 'RECORD FOUND' ROUTINE
/* RECORD NOT FOUND ROUTINE
/* -> RECCRD CURPNT DES.NO.
/* -> SET 'RECORD FOUND' BIT
/*
/* -> TEST FOR COMPLETE FILE CYCLE
/* -> CLASS C ERROR/WARNING
/*
/* -> RESET 'RECORD FOUND' BIT
/* -> BRANCH FOR NEXT REQUIRED DES.NO.
/*
/* -> BRANCH FOR NEXT RECORD
/* END RECORD 'NOT FOUND' ROUTINE
/*
/* -----*/
/* END PROGRAMME I.
/*

```

5. PROGRAMME 1.

5.3 COMPILER LISTING

THIS SECTION CONTAINS A LISTING OF THE OUTPUT PROVIDED BY THE PL/1 F COMPILER DURING THE COMPILATION OF PROGRAMME 1.

THE JCL WAS AS FOLLOWS:

\$RUN *PL1 SPUNCH=-1

PROGRAMME 1 SOURCE DECK

\$ENDFILE

THE COMPLETE LIST OF OPTIONS USED DURING THIS COMPILATION IS--

- EBCDIC
- CHAR60
- NCMACRC
- SOURCE2
- NOMACDCK
- CCMP
- SOURCE
- ATR
- XREF
- NOEXTREF
- NOLIST
- NCLCAD
- DECK
- FLAGW
- STMT
- SIZE=010P
- LINECNT=060
- OPT=01
- SORMGIN=(001,072)
- NEST
- OPLIST

OPTIONS IN EFFECT EBCDIC,CHAR60,NOMACRC,SOURCE2,NOMACDCK,COMP,SOURCE,ATR,XREF,NOEXTREF,NOLIST,NOLOAD,
OPTIONS IN EFFECT DECK,FLAGW,STMT,SIZE=010P,LINECNT=060,OPT=01,SORMGIN=(001,072),
OPTIONS IN EFFECT NEST,OPLIST

STMT LEVEL NEST

1	1	(SUBRG):(STRG):	10000010
		I:PROCEDURE OPTIONS(MAIN);	10000020
2	1	DCL 1 RECCRD BASED(PTP),	10000030
		2 (DESN0 CHAR(8), NAME CHAR(4)),	10000040
		2 GENERAL,	10000050
		3 (PNAME CHAR(17), (TITLE,YC) CHAR(2), (SEX,REG) CHAR(1)),	10000060
		3 ((DOB,C,MART,SET,POCC,SODC,OV25,REL,CONF) CHAR(1)),	10000070
		3 ((DOB,TFT(2,2)) CHAR(6),AUTH CHAR(19),AUTHND CHAR(1)),	10000080
		3 FPOS CHAR(4),	10000090
		2 EDUCATION,	10000100
		3 (SCHND CHAR(2), SCH(10) CHAR(5)),	10000110
		3 (QUALND CHAR(2), QUAL(30) CHAR(10)),	10000120
		3 (UNCOL(2) CHAR(21), FPT(1) CHAR(2), FT(2,2) CHAR(6)),	10000130
		3 (UNOTH(2) CHAR(21), DEG(2) CHAR(3), HPCD(2) CHAR(4)),	10000140
		3 (SUB(2) CHAR(36), DAT(2) CHAR(6)),	10000150
		3 (ADIP CHAR(30), ADIPC CHAR(1)),	10000160
		3 DOIPC CHAR(1),	10000170
		3 (OQ(2) CHAR(30), OQC(2) CHAR(4)),	10000180
		3 ATQ CHAR(1),	10000190
		2 COURSE,	10000200
		3 (LEN CHAR(1), CODES(4) CHAR(3)),	10000210
		3 ((LE,DC(4,24:64)) CHAR(1)),	10000220
		3 (DC1(4,26:30) CHAR(2)),	10000230
		3 ((DC46(4),DC49(4)) CHAR(3)),	10000240
		2 FINALS,	10000250
		3 ((TC,WS,BE,SURCAR) CHAR(1)),	10000260
		2 ANNPROG,	10000270
		3 AP CHAR(802),	10000280
		3 ((LEAP,FK(100,2)) FIXED BINARY),	10000290
		2 INTEL,	10000300
		3 (INTELB CHAR(2), (VALUES(2,6), DSCALE(2)) FIXED BINARY),	10000310
		3 ((AH4(2,3),PF16(2,16)) FIXED BINARY),	10000320
		3 STEN(2,16) FIXED BINARY;	10000330
		/*-----*/	10000340
3	1	DCL (VF(0:60,6),DSF(0:300),AHF(0:130,3),PFF(0:26,16),SF(0:10,16))	10000350
		FIXED BINARY;	10000360
4	1	DCL ((VT,VST)(6),(DST,DSST),(AHT,AHST)(2),(PFT,PFST)(16),	10000370
		(SST,SSST)(16)) FLOAT DECIMAL(15);	10000380
5	1	DCL LOP(20) CHAR(1), (RLAB,CLAB)(20) FIXED BINARY,	10000390
		RITEM(20) CHAR(20) VARYING;	10000400
6	1	DCL MNT(16) FIXED BINARY INITIAL(20,13,26,26,26,20,26,	10000410
		20,20,26,20,26,20,20,20,26);	10000420
7	1	DCL (FILN1,FILN2,WD,DT,DESL(1000)) CHAR(8), YE CHAR(4), WRL	10000430
		CHAR(3), (YT,WCP,PI) CHAR(1), (KT,OPT,YR,K) FIXED BINARY, (WB,LB,	10000440
		RB,SUPP,WPB,LPB,RPB,B) BIT(1), REQUEST CHAR(400) VARYING,	10000450
		(DESN03,DESN02) CHAR(8);	10000460
		/*-----*/	10000470
8	1	DCL STUDENT FILE RECORD ENV(F(2416));	10000480
		/*-----*/	10000490
9	1	ITIMS:PROC;	10000500
10	2	DCL K FIXED BINARY;	10000510
11	2	DO K=1 TO 6;	10000520
12	2	IF VALUES(YR,K)>0 & VALUES(YR,K)<=60 THEN	10000530
13	2	DO: VT(K)=VT(K)+VALUES(YR,K);	10000540
15	2	VST(K)=VST(K)+VALUES(YR,K)**2;	10000550
			10000560

STMT LEVEL NEST

```
16 2 2 10000570
17 2 1 10000580
18 2 1 10000590
19 2 1 10000600
20 2 1 10000610
21 2 1 10000620
22 2 1 10000630
23 2 1 10000640
24 2 1 10000650
25 2 1 10000660
26 2 1 10000670
27 2 1 10000680
29 2 2 10000690
30 2 2 10000700
31 2 1 10000710
32 2 1 10000720
33 2 1 10000730
34 2 1 10000740
35 2 1 10000750
36 2 1 10000760
37 2 1 10000770
38 2 2 10000780
39 2 2 10000790
40 2 2 10000800
41 2 2 10000810
42 2 1 10000820
43 2 1 10000830
44 2 1 10000840
45 2 1 10000850
46 2 1 10000860
47 2 1 10000870
48 2 1 10000880
49 2 1 10000890
50 2 1 10000900
51 2 1 10000910
52 2 1 10000920
53 2 1 10000930
54 2 1 10000940
55 2 1 10000950
56 2 1 10000960
57 2 1 10000970
58 2 1 10000980
59 2 1 10000990
60 2 1 10001000
61 2 1 10001010
62 2 1 10001020
63 2 1 10001030
64 2 1 10001040
65 2 1 10001050
66 2 1 10001060
67 2 1 10001070
68 2 1 10001080
69 2 1 10001090
70 2 1 10001100
```

```
END: ELSE
  PUT EDIT(DESNO,'ERROR RETURNED FOR VALUES SCORE',K)
  (SKIP,COL(1),A,X(1),A,X(1),F(1));
END;
IF DSCALE(YR)>=0 & DSCALE(YR)<=300 THEN
  DO; DST=DST+DSCALE(YR);
  DSST=DSST+DSCALE(YR)**2;
END; ELSE
  PUT EDIT(DESNO,'ERROR RETURNED FOR D.SCALE SCORE')
  (SKIP,COL(1),A,X(1),A,X(1),F(2));
  DO K=1,2;
    IF AH4(YR,K)>=0 & AH4(YR,K)<=130 THEN
      DO; AHT(K)=AHT(K)+AH4(YR,K);
      AHST(K)=AHST(K)+AH4(YR,K)**2;
      END; ELSE
        PUT EDIT(DESNO,'ERROR RETURNED FOR A.H.4 SCORE',K)
        (SKIP,COL(1),A,X(1),A,X(1),F(2));
      END;
    DO K=1 TO 16;
      IF PF16(YR,K)>=0 & PF16(YR,K)<=MNT(K) THEN
        DO; PFT(K)=PFT(K)+PF16(YR,K);
        PFST(K)=PFST(K)+PF16(YR,K)**2;
        SST(K)=SST(K)+STEN(YR,K);
        SSST(K)=SSST(K)+STEN(YR,K)**2;
        END; ELSE
          PUT EDIT(DESNO,'ERROR RETURNED FOR P.F.16 SCORE',K)
          (SKIP,COL(1),A,X(1),A,X(1),F(2));
        END;
      END;
    END;
  /*****
  ITRFRQ:PROC;
  DCL K FIXED BINARY;
  DO K=1 TO 6;
    IF VALUES(YR,K)>=0 & VALUES(YR,K)<=60 THEN
      VF(VALUES(YR,K),K)=VF(VALUES(YR,K),K)+1; ELSE
        PUT EDIT(DESNO,'ERROR RETURNED FOR VALUES SCORE',K)
        (SKIP,COL(1),A,X(1),A,X(1),F(1));
      END;
    IF DSCALE(YR)>=0 & DSCALE(YR)<=300 THEN
      DSF(DSCALE(YR))=DSF(DSCALE(YR))+1; ELSE
        PUT EDIT(DESNO,'ERROR RETURNED FOR D.SCALE SCORE')
        (SKIP,COL(1),A,X(1),A,X(1),F(2));
      DO K=1,2;
        IF AH4(YR,K)>=0 & AH4(YR,K)<=130 THEN
          AHF(AH4(YR,K),K)=AHF(AH4(YR,K),K)+1; ELSE
            PUT EDIT(DESNO,'ERROR RETURNED FOR A.H.4 SCORE',K)
            (SKIP,COL(1),A,X(1),A,X(1),F(2));
          END;
        DO K=1 TO 16;
          IF PF16(YR,K)>=0 & PF16(YR,K)<=MNT(K) THEN
            PFF(PF16(YR,K),K)=PFF(PF16(YR,K),K)+1; ELSE
              DO; PUT EDIT(DESNO,'ERROR RETURNED FOR P.F.16 SCORE',K)
                (SKIP,COL(1),A,X(1),A,X(1),F(2));
              RETURN;
            END;
          END;
        END;
      END;
```

STMT		LEVEL	NEST		
65	2	2		END;	10001110
66	2	1		SF(STEN(YR,K),K)=SF(STEN(YR,K),K)+1;	10001120
67	2	1		END;	10001130
68	2			END;	10001140
/*****					
69	1			SPNT:PRNC;	10001150
70	2			DCL I FIXED BINARY;	10001160
71	2			PUT SKIP(3);	10001170
72	2			DO I=1 TO KT;	10001180
73	2	1		IF MOD(I-1,10)=0 THEN PUT EDIT(DESL(I))(SKIP,X(3),A(8)); ELSE	10001190
75	2	1		PUT EDIT(DESL(I))(X(3),A(8));	10001200
76	2	1		END;	10001210
77	2			END;	10001220
/*****					
78	1			PRINT:PRNC;	10001230
79	2			IF MOD(KT-1,25)=0 THEN	10001240
80	2			DO; PUT EDIT('D.E.S.NO', '-----VALUES-----'), ('D.SCALE'),	10001250
' (---AH.4---)', '-----PF.16-----')					
) (PAGE,COL(1),A(8),4(X(4),A));					
PUT SKIP;					
82	2	1		END;	10001290
83	2	1		PUT EDIT(DESNO,VALUES(YR,*),DSCALE(YR),A(4(YR,*),PF16(YR,*))	10001300
84	2			(SKIP,COL(1),A,X(3),6(X(1),F(2)),X(7),F(3),X(6),2(X(1),F(2)),X(2),	10001310
F(3),X(3),16(X(1),F(2)));					
PUT EDIT(STEN(YR,*))(SKIP,COL(6C),16(X(1),F(2)));					
85	2			END;	10001320
86	2			END;	10001330
/*****					
87	1			ITPTMS:PRNC;	10001340
88	2			DCL K FIXED BINARY;	10001350
89	2			DCL PFK(16) CHAR(2) INITIAL(' A',' B',' C',' E',' F',' G',' H',	10001360
' I',' L',' M',' N',' O',' Q1',' Q2',' Q3',' Q4');					
VST=SQRT((VST-(VT**2/KT))/KT);					
90	2			DSST=SQRT((DSST-(DST**2/KT))/KT);	10001370
91	2			AHST=SQRT((AHST-(AHT**2/KT))/KT);	10001380
92	2			PFST=SQRT((PFST-(PFT**2/KT))/KT);	10001390
93	2			SSST=SQRT((SSST-(SST**2/KT))/KT);	10001400
94	2			PUT EDIT('TEST','TOTAL(MEAN)ST.DEV','TOTAL(MEAN)ST.DEV')	10001410
95	2			(SKIP(2),COL(7),A,COL(20),A,X(5),A);	10001420
PUT EDIT('VALUES')(SKIP(2),COL(5),A);					
DO K=1 TO 6;					
96	2			PUT EDIT('(','K,')')(COL(11),A,F(2),A);	10001430
97	2			PUT EDIT(VT(K),(',(VT(K)/KT),','VST(K))	10001440
98	2	1		(X(2),F(8),A,F(6,2),A,F(6,2));	10001450
99	2	1		END;	10001460
/*****					
100	2	1		END;	10001470
101	2			PUT EDIT('C.SCALE','(SKIP(2),COL(4),A);	10001480
102	2			PUT EDIT(DST,(',(DST/KT),','DSST)	10001490
(X(2),F(8),A,F(6,2),A,F(6,2));					
103	2			PUT EDIT('A.H.4')(SKIP(2),COL(6),A);	10001500
104	2			DO K=1,2;	10001510
105	2	1		PUT EDIT('(','K,')')(COL(11),A,F(2),A);	10001520
106	2	1		PUT EDIT(AHT(K),(',(AHT(K)/KT),','AHST(K))	10001530
(X(2),F(8),A,F(6,2),A,F(6,2));					
107	2	1		END;	10001540
108	2			PUT EDIT('STEN SCORES')(X(13),A);	10001550

STMT	LEVEL	NEST
109	2	
110	2	
111	2	1
112	2	1
113	2	1
114	2	1
115	2	
116	1	
117	2	
118	2	
119	2	
120	2	
121	2	1
122	2	2
123	2	2
125	2	3
126	2	3
127	2	2
128	2	1
129	2	
130	2	
131	2	
132	2	1
134	2	1
135	2	
136	2	
137	2	
138	2	1
139	2	1
140	2	1
141	2	
142	2	
143	2	
144	2	1
145	2	1
146	2	2
147	2	2
148	2	2
149	2	2
150	2	1
151	2	
152	2	
153	2	

```
PUT EDIT('P.F.16')(SKIP(2),COL(5),A);
DO K=1 TO 16;
  PUT EDIT('(','PFK(K),'')(COL(11),A,A(2),A);
  PUT EDIT(PFT(K),'(',(PFT(K)/KT),'',PFT(K))
    (X(2),F(8),A,F(6,2),A,F(6,2)));
  PUT EDIT(SST(K),'(',(SST(K)/KT),'',SSST(K))
    (X(2),F(8),A,F(6,2),A,F(6,2)));
END;

/*****
ITPFREQ:PROC;
  DCL (I,J,K) FIXED BINARY;
  PUT EDIT('VALUES','SCORE','FREQUENCY')(SKIP(2),COL(1),A,SKIP,
    COL(2),A,COL(25),A);
  PUT SKIP;
  DO I=0 TO 60;
    DO J=1 TO 6;
      IF VF(I,J)>0 THEN
        DO; PUT EDIT(I,(VF(I,K) DO K=1 TO 6))(SKIP,COL(5),F(2),
          6(X(4),F(4)));
          GOTO L1;
        END;
      END;
    END;
  END;

L1:
  PUT EDIT('D.SCALE','SCORE','FREQUENCY')(PAGE,COL(1),A,SKIP,COL(3),
    A,COL(20),A);
  PUT SKIP;
  DO I=1 TO 130;
    IF AHF(I,1)>0 | AHF(I,2)>0 THEN
      PUT EDIT(I,AHF(I,1),AHF(I,2))(SKIP,COL(3),F(3),
        X(7),2(X(4),F(4)));
    END;
  END;
  PUT EDIT('A.H.4','SCORE','FREQUENCY')(PAGE,COL(1),A,SKIP,COL(1),A,
    COL(20),A);
  PUT SKIP;
  DO I=1 TO 130;
    IF AHF(I,1)>0 | AHF(I,2)>0 THEN
      PUT EDIT(I,AHF(I,1),AHF(I,2))(SKIP,COL(3),F(3),
        X(7),2(X(4),F(4)));
    END;
  END;
  PUT EDIT('P.F.16','SCORE','FREQUENCY')(PAGE,COL(1),A,SKIP,COL(2),
    A,COL(50),A);
  PUT SKIP;
  DO I=0 TO 26;
    PUT EDIT(I)(SKIP,COL(5),F(2));
    DO J=1 TO 16;
      IF I<=MNT(J) THEN
        PUT EDIT(PFF(I,J))(X(3),F(3)); ELSE
          PUT EDIT('')(A);
        END;
      END;
    END;
  PUT EDIT('STEN','SCORE','FREQUENCY')(SKIP(4),COL(3),A,COL(2),A,
    COL(50),A);
  PUT SKIP;
  DO I=0 TO 10;
    PUT EDIT(I);
  END;
```

STMT	LEVEL	NEST
154	2	1
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156	2	2
157	2	2
158	2	1
159	2	
160	1	
161	2	
162	2	
163	2	
164	2	
165	2	
166	2	
168	2	
169	2	1
170	2	1
171	2	1
173	2	2
174	2	2
175	2	1
176	2	1
178	2	2
179	2	2
180	2	2
181	2	1
182	2	2
184	2	2
185	2	1
186	2	1
187	2	1
188	2	1
190	2	2
191	2	2
192	2	2
193	2	2
194	2	1
196	2	2
197	2	2
198	2	2
199	2	2
200	2	1
201	2	1
202	2	1
203	2	1
204	2	1
205	2	1
207	2	2
208	2	3
209	2	3
210	2	3
211	2	3

```

PUT EDIT(I)(SKIP,COL(5),F(2));
DO J=1 TO 16;
  PUT EDIT(SF(I,J))(X(3),F(3));
END;

END;
/*****
TRANS:PRQC(REQUEST,LOP,CLAB,RLAB,RTITEM,K);
DCL (CLAB,PLAB)(20) FIXED BINARY, LOP(20) CHAR(1),
RTITEM(20) CHAR(20) VARYING;
DCL REQUEST CHAR(400) VARYING;
DCL PCOND(6) CHAR(2) VARYING INITIAL(' ','-','>','<','<');
DCL X1 CHAR(1),LR CHAR(3),(I,J,K,LK,LL,LB,NB) FIXED BINARY;
LL=LENGTH(REQUEST);
K=0; LK=1;
DO I=1 TO LL;
  X1=SUBSTR(REQUEST,I,1);
  IF X1=' ' THEN
    DO; LB=I;
      GOTO L61;
    END; ELSE
  IF X1='<' | X1='>' THEN
    DO; LK=LK+1;
      LOP(LK)=X1;
      GOTO L61;
    END; ELSE
  DO J=1,3,5;
    IF X1=PCOND(J) THEN GOTO L62;
  END;
  GOTO L61;
END;
L61:
NB=INDEX(SUBSTR(REQUEST,I),' ');
IF SUBSTR(REQUEST,I-1,1)='-' THEN
  DO; K=K+1;
    CLAB(K)=J+1;
    LR=SUBSTR(REQUEST,LB+1,I-LB-2);
    RLAB(K)=LR;
  END; ELSE
  DO; K=K+1;
    CLAB(K)=J;
    LR=SUBSTR(REQUEST,LB+1,I-LB-1);
    RLAB(K)=LR;
  END;
RTITEM(K)=SUBSTR(REQUEST,I+1,NB-2);
I=I+NB-1;
L61: END;
DO I=1 TO K;
  IF RLAB(I)<1 | RLAB(I)>66 THEN
    DO; PUT EDIT('ERROR...ITEM',RLAB(I),'NOT INCLUDED')
      (SKIP,COL(1),A,X(1),F(2),X(1),A);
      DO J=I TO K-1;
        LOP(J)=LOP(J+1);
        RLAB(J)=RLAB(J+1);
        CLAB(J)=CLAB(J+1);
        RTITEM(J)=RTITEM(J+1);
      END;
    END;
  END;

```

STMT	LEVEL	NEST		
212	2	3	K=K-1;	10002730
213	2	3	END;	10002740
214	2	2	END;	10002750
215	2	1	END;	10002760
216	2		END;	10002770
217	1		LOCST:PROC(YR,LOP,CLAB,RLAB,RITEM,K) RETURNS(BIT(1));	10002780
218	2		DCL LOP(20) CHAR(1),(CLAB,RLAB)(20) FIXED BINARY, RITEM(20)	10002790
219	2		CHAR(20) VARYING;	10002800
220	2		DCL REQ1 CHAR(12),REQM CHAR(20) VARYING;	10002810
221	2		DCL ITEM CHAR(20) VARYING, YR FIXED BINARY;	10002820
222	2		DCL (K,I,J,QS) FIXED BINARY;	10002830
223	3		IF LR>=26 & LR<=35 THEN I=LE;	10002840
			IF LR>=26 & LR<=35 THEN I=LE;	10002850
			IF LR>=26 & LR<=35 THEN I=LE;	10002860
			IF LR>=26 & LR<=35 THEN I=LE;	10002870
			IF LR>=26 & LR<=35 THEN I=LE;	10002880
			IF LR>=26 & LR<=35 THEN I=LE;	10002890
			IF LR>=26 & LR<=35 THEN I=LE;	10002900
			IF LR>=26 & LR<=35 THEN I=LE;	10002910
			IF LR>=26 & LR<=35 THEN I=LE;	10002920
			IF LR>=26 & LR<=35 THEN I=LE;	10002930
			IF LR>=26 & LR<=35 THEN I=LE;	10002940
			IF LR>=26 & LR<=35 THEN I=LE;	10002950
			IF LR>=26 & LR<=35 THEN I=LE;	10002960
			IF LR>=26 & LR<=35 THEN I=LE;	10002970
			IF LR>=26 & LR<=35 THEN I=LE;	10002980
			IF LR>=26 & LR<=35 THEN I=LE;	10002990
			IF LR>=26 & LR<=35 THEN I=LE;	10003000
			IF LR>=26 & LR<=35 THEN I=LE;	10003010
			IF LR>=26 & LR<=35 THEN I=LE;	10003020
			IF LR>=26 & LR<=35 THEN I=LE;	10003030
			IF LR>=26 & LR<=35 THEN I=LE;	10003040
			IF LR>=26 & LR<=35 THEN I=LE;	10003050
			IF LR>=26 & LR<=35 THEN I=LE;	10003060
			IF LR>=26 & LR<=35 THEN I=LE;	10003070
			IF LR>=26 & LR<=35 THEN I=LE;	10003080
			IF LR>=26 & LR<=35 THEN I=LE;	10003090
			IF LR>=26 & LR<=35 THEN I=LE;	10003100
			IF LR>=26 & LR<=35 THEN I=LE;	10003110
			IF LR>=26 & LR<=35 THEN I=LE;	10003120
			IF LR>=26 & LR<=35 THEN I=LE;	10003130
			IF LR>=26 & LR<=35 THEN I=LE;	10003140
			IF LR>=26 & LR<=35 THEN I=LE;	10003150
			IF LR>=26 & LR<=35 THEN I=LE;	10003160
			IF LR>=26 & LR<=35 THEN I=LE;	10003170
			IF LR>=26 & LR<=35 THEN I=LE;	10003180
			IF LR>=26 & LR<=35 THEN I=LE;	10003190
			IF LR>=26 & LR<=35 THEN I=LE;	10003200
			IF LR>=26 & LR<=35 THEN I=LE;	10003210
			IF LR>=26 & LR<=35 THEN I=LE;	10003220
			IF LR>=26 & LR<=35 THEN I=LE;	10003230
			IF LR>=26 & LR<=35 THEN I=LE;	10003240
			IF LR>=26 & LR<=35 THEN I=LE;	10003250
			IF LR>=26 & LR<=35 THEN I=LE;	10003260

STMT LEVEL NEST

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295 3 R(24):I=ST; /* CONVERSION */10003270
296 3 ITEM=CODES(I); RETURN; R(25):ITEM=DC(46(1)); RETURN; 10003280
300 3 R(26):ITEM=DC(1,25); RETURN; R(27):ITEM=DC(1,34); RETURN; 10003290
304 3 R(28):ITEM=DC(1,35); RETURN; R(29):ITEM=DC(1,36); RETURN; 10003300
308 3 R(30):ITEM=DC(1,37); RETURN; R(31):ITEM=DC(1,38); RETURN; 10003310
312 3 R(32):ITEM=DC(1,41); RETURN; R(33):ITEM=DC(1,42); RETURN; 10003320
316 3 R(34):ITEM=DC(1,59); RETURN; R(35):ITEM=DC(1,64); RETURN; 10003330
320 3 R(36):XVAR=SUBSTR(REQ1,5,INDEX(REQ1,'')-5); 10003340
321 3 I=XVAR; /* CONVERSION */10003350
322 3 IF FK(1,1)=0 THEN ITEM=SUBSTR(AP,FK(1,1),FK(1,2)-1); ELSE 10003360
324 3 ITEM=''; RETURN; 10003370
326 3 R(37):ITEM=TC; RETURN; 10003380
328 3 R(38):ITEM=WS; RETURN; 10003390
330 3 R(39):ITEM=RE; RETURN; 10003400
332 3 R(40):ITEM=SUBCAR; RETURN; 10003410
334 3 R(41):R(42):R(43):R(44):R(45):R(46):KC=VALUES(YR,LR-40); GOTO L1; 10003420
336 3 R(47):KC=DSCALE(YR); GOTO L1; 10003430
338 3 R(48):R(49):R(50):KC=AH4(YR,LR-47); GOTO L1; 10003440
340 3 R(51):R(52):R(53):R(54):R(55):P(56):KC=PF16(YR,LR-50); GOTO L1; 10003450
342 3 R(57):R(58):R(59):R(60):R(61):R(62):KC=PF16(YR,LR-50); GOTO L1; 10003460
344 3 R(63):R(64):R(65):R(66):KC=PF16(YR,LR-50); 10003470
345 3 L1: ITEM=CHAR(KC); 10003480
346 3 END; 10003490
/*****
347 2 TEST:PROC(ITEM,COND,REQ) RETURNS(BIT(1)); /* CONVERSION */10003500
348 3 DCL (ITEM,REQ,X20) CHAR(20) VARYING, COND FIXED BINARY; 10003510
349 3 DCL C(6) LABEL INITIAL(C1,C2,C3,C4,C5,C6); 10003520
350 3 X20=ITEM; ITEM=((20)'); SUBSTR(ITEM,21-LENGTH(X20))=X20; 10003530
353 3 X20=REQ; REQ=((20)'); SUBSTR(REQ,21-LENGTH(X20))=X20; 10003540
356 3 GOTO C(COND); 10003550
357 3 C1: IF ITEM=REQ THEN RETURN('1'B); ELSE RETURN('0'B); 10003560
360 3 C2: IF ITEM=REQ THEN RETURN('1'B); ELSE RETURN('0'B); 10003570
363 3 C3: IF ITEM>REQ THEN RETURN('1'B); ELSE RETURN('0'B); 10003580
366 3 C4: IF ITEM<>REQ THEN RETURN('1'B); ELSE RETURN('0'B); 10003590
369 3 C5: IF ITEM<REQ THEN RETURN('1'B); ELSE RETURN('0'B); 10003600
372 3 C6: IF ITEM<REQ THEN RETURN('1'B); ELSE RETURN('0'B); 10003610
375 3 END; 10003620
376 2 DCL TEST ENTRY(,) RETURNS(BIT(1)); 10003630
/*****
377 2 DO I=1 TO K; 10003640
378 2 IF RLAB(I)=4 | RLAB(I)=6 | RLAB(I)=7 | RLAB(I)=9 | RLAB(I)=19 10003650
379 2 | RLAB(I)=21 | RLAB(I)=24 | RLAB(I)=36 | RLAB(I)=40 THEN 10003660
380 2 REQ1=SUBSTR(ITEM(I),INDEX(ITEM(I),''))); 10003670
381 2 IF RLAB(I)=4 | RLAB(I)=6 | RLAB(I)=7 | RLAB(I)=9 | RLAB(I)=36 10003680
382 2 | RLAB(I)=40 THEN IF SUBSTR(REQ1,2,2)=SUBSTR(TTFT(1,1),5,2) 10003690
385 2 THEN IF I+1<K & LOP(I+1)='1' THEN GOTO L66; ELSE RETURN('0'B); 10003700
386 2 CALL FIND(YR,ITEM,RLAB(I),REQ1); 10003710
387 2 IF RLAB(I)=4 | RLAB(I)=6 | RLAB(I)=7 | RLAB(I)=9 | RLAB(I)=19 10003720
388 2 | RLAB(I)=21 | RLAB(I)=24 | RLAB(I)=36 | RLAB(I)=40 THEN 10003730
389 2 REQM=SUBSTR(ITEM(I),1,INDEX(ITEM(I),'')-1); ELSE 10003740
390 2 IF TEST(ITEM,CLAB(I),REQM) THEN 10003750
392 2 DO; DO J=I+1 TO K; 10003760
IF LOP(J)='1' THEN 10003770
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STMT	LEVEL	NEST		
393	2	3	DO; I=J-1;	10003810
395	2	4	GOTO L66;	10003820
396	2	4	END;	10003830
397	2	3	END;	10003840
398	2	2	RETURN('1'B);	10003850
399	2	2	END; ELSE	10003860
400	2	2	IF I+1<K & LOP(I+1)='1' THEN GOTO L66; ELSE RETURN('0'B);	10003870
403	2	1	L66: END;	10003880
404	2		END;	10003890
405	1		DCL LOGST ENTRY(,,,); RETURNS(BIT(1));	10003900
			/*****	10003910
406	1		ON ENDFILE(SCARDS) GOTO L09;	10003920
408	1		L39: GET EDIT(FILN1,FILN2,YE)(COL(1),A(8),X(1),A(8),X(1),A(4));	10003930
409	1		GET LIST(OPT);	10003940
410	1		IF OPT<1 OPT>4 THEN	10003950
411	1		DO: PUT EDIT('OPTION INVALID....PROGRAM TERMINATED')	10003960
			(SKIP,COL(1),A);	10003970
			GOTO L09;	10003980
413	1	1	END;	10003990
414	1	1	WRL='XXX'; WCR='X'; YT='F'; PI='0'; REQUEST=''; B='0'B;	10004000
415	1		GET DATA;	10004010
421	1		IF SUBSTR(WRL,1,1)='1' THEN WB='1'B; ELSE WB='0'B;	10004020
422	1		IF SUBSTR(WRL,1,1)='2' THEN WPB='1'B; ELSE WPB='0'B;	10004030
425	1		IF SUBSTR(WRL,2,1)='1' THEN RB='1'B; ELSE RB='0'B;	10004040
428	1		IF SUBSTR(WRL,2,1)='2' THEN RPB='1'B; ELSE RPB='0'B;	10004050
431	1		IF SUBSTR(WRL,3,1)='1' THEN LB='1'B; ELSE LB='0'B;	10004060
434	1		IF SUBSTR(WRL,3,1)='2' THEN LPB='1'B; ELSE LPB='0'B;	10004070
437	1		IF YT='F' THEN YR=1; ELSE IF YT='L' THEN YR=2; ELSE YR=1;	10004080
440	1		PUT EDIT('BCRS...BEDE COLLEGE RECORD SYSTEM',PROGRAMME I',	10004090
445	1		'OPTION REQUESTED',OPT,'YEAR REQUESTED',YE)(PAGE,COL(1),A,	10004100
			SKIP(2),COL(1),A,COL(1),A,COL(32),F(2),COL(1),A,COL(30),A);	10004110
			PUT SKIP(2);	10004120
446	1		IF WRL='XXX' THEN PUT EDIT('WRL REQUESTED',WRL)	10004130
447	1		(COL(1),A,COL(31),A); ELSE WRL='000';	10004140
449	1		IF WCR='X' THEN PUT EDIT('WCR REQUESTED',WCR)(COL(1),A,COL(33),	10004150
450	1		A); ELSE WCR='*';	10004160
452	1		PUT EDIT('YEAR OF TEST',YT)(COL(1),A,COL(33),A);	10004170
453	1		IF PI='0' THEN PUT EDIT('PRINT INDICATOR',PI)	10004180
454	1		(COL(1),A,COL(33),A);	10004190
			PUT SKIP(4);	10004200
456	1		IF REQUEST='*' THEN GOTO L00;	10004210
457	1		/*-----*	10004220
459	1		L1234:OPEN FILE(STUDENT) INPUT TITLE(FILN1);	10004230
460	1		ON ENDFILE(STUDENT)	10004240
461	1		BEGIN; DT=DATE;	10004250
463	2		DT=SUBSTR(DT,4,2) '/' SUBSTR(DT,1,2) '/'	10004260
			SUBSTR(DT,7,2);	10004270
464	2		IF OPT=1 OPT=2 THEN	10004280
465	2		DO; IF OPT=1 THEN PUT EDIT('VE,FILE.....INTELLIGENCE ',	10004290
			'TEST TOTALS (MEANS) ST. DEV')(SKIP(2),A(4),X(1),A,A);	10004300
468	2	1	IF OPT=2 THEN PUT EDIT('VE,FILE.....INTELLIGENCE ',	10004310
			'TEST FREQUENCY COUNTS')(SKIP(2),A(4),X(1),A,A);	10004320
			PUT EDIT('KT,STUDENTS INCLUDED')	10004330
470	2	1	(SKIP(3),COL(1),F(4),X(1),A);	10004340

STMT	LEVEL	NEST
471	2	1
473	2	1
475	2	1
476	2	1
479	2	1
480	2	1
481	2	1
483	2	1
485	2	2
487	2	2
488	2	1
489	2	
490	2	
492	2	1
493	2	1
495	2	1
497	2	1
498	2	1
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500	2	1
501	2	1
502	2	
503	2	
504	2	
505	2	
506	1	
509	1	
510	1	
519	1	1
521	1	1
522	1	
523	1	
527	1	1
529	1	1
530	1	
531	1	
537	1	1
538	1	1
539	1	1
540	1	1
542	1	2
543	1	2
544	1	1
549	1	1
554	1	1
555	1	
556	1	
557	1	

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IF KT=0 THEN GOTO L21;
IF ~SUPP THEN CALL SPNT;
PUT PAGE;
IF OPT=1 THEN CALL ITPMTS; ELSE CALL ITPFREQ;
END; ELSE
IF OPT=3 THEN
DO; IF PI='1' THEN
DO; PUT EDITIVE,'FILE....INTELLIGENCE TESTS',KT,
'STUDENTS INCLUDED')(PAGE,COL(1),A,X(1),A,X(1),
F(4),X(1),A);
IF ~SUPP THEN CALL SPNT;
END;
END; ELSE
IF OPT=4 THEN
DO; PUT EDIT('TOTALS,MEANS,STANDARD DEVIATIONS AND ',
'FREQUENCY COUNTS FOR REQUEST',REQUEST)
(SKIP(2),COL(1),A,A,X(2),A);
PUT EDIT(KT,'STUDENTS INCLUDED')
(SKIP(3),COL(1),F(4),X(1),A);
IF KT=0 THEN GOTO L51;
IF ~SUPP THEN CALL SPNT;
PUT PAGE;
CALL ITPMTS;
PUT PAGE;
CALL ITPFREQ;
END;
L51:
PUT EDIT('DATE OF LISTING',DT)(SKIP(2),COL(1),A,X(1),A);
CLOSE FILE(STUDENT);
GOTO L39;
END;
KT=C; DESL=''; SUPP='0'B;
IF OPT=1 THEN
DO; VT=0; VST=0; DST=0; DSST=0; AHT=0; AHST=0; PFT=0; PFST=0;
SST=0; SSST=0;
END; ELSE
IF OPT=2 THEN
DO; VF=0; DSF=0; AHF=0;
PFF=0; SF=0;
END; ELSE
IF OPT=4 THEN
DO; LOP=''; CLAB=0; RLAB=0; RITEM=''; K=0;
IF SUBSTR(REQUEST,2,1)=' ' THEN
CALL TRANS(REQUEST,LOP,CLAB,RLAB,RITEM,K);
IF K=0 THEN
DO; CLOSE FILE(STUDENT);
GOTO L39;
END;
END;
VT,VST=0; DST,DSST=0; AHT,AHST=0; PFT,PFST=0; SST,SSST=0;
VF=0; DSF=0; AHF=0; PFF=0; SF=0;
END;
L31: READ FILE(STUDENT) SET(PTR);
IF SUBSTR(INTELB,YR,1)='*' THEN
DO; IF OPT=3 THEN PUT EDIT(DESN0,'HAS NO CORRESPONDING DATA')
(COL(1),A,X(1),A);
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STMT LEVEL NEST

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560 1 1 1 GOTO L31;
561 1 1 1 END;
562 1 1 1 IF ~WB & SUBSTR(TTFT(2,1),1,4)='WITH' THEN
563 1 1 1 DO; IF WPB THEN
564 1 1 1 DO; WD=SUBSTR(TTFT(1,2),1,2) || '/' || SUBSTR(TTFT(1,2),
565 1 1 1 3,2) || '/' || SUBSTR(TTFT(1,2),5,2);
566 1 1 1 PUT EDIT(DESNQ,'WITHDREW ON',WD)(COL(1),A,2(X(1),A));
567 1 1 1 END;
568 1 1 1 GOTO L31;
569 1 1 1 END; ELSE
570 1 1 1 IF ~LB & SUBSTR(TTFT(2,1),1,4)='LEFT' THEN
571 1 1 1 DO; IF LPB THEN
572 1 1 1 DO; WD=SUBSTR(TTFT(1,2),1,2) || '/' || SUBSTR(TTFT(1,2),
573 1 1 1 3,2) || '/' || SUBSTR(TTFT(1,2),5,2);
574 1 1 1 PUT EDIT(DESNQ,'LEFT ON',WD)(COL(1),A,2(X(1),A));
575 1 1 1 END;
576 1 1 1 GOTO L31;
577 1 1 1 END; ELSE
578 1 1 1 IF ~RB & SUBSTR(TTFT(2,1),1,4)=' ' THEN
579 1 1 1 DO; IF RPB THEN PUT EDIT(DESNQ,'AT COLLEGE')(COL(1),A,X(1),A);
580 1 1 1 GOTO L31;
581 1 1 1 END; ELSE
582 1 1 1 IF WB & WCR='*' & WCR=SUBSTR(TTFT(2,1),6,1) THEN GOTO L31;
583 1 1 1 IF OPT=1 | OPT=2 | OPT=3 |
584 1 1 1 (OPT=4 & LOCIST(YR,LOP,CLAB,RLAB,RITEM,K)) THEN
585 1 1 1 DO; KT=KT+1;
586 1 1 1 IF KT>1000 THEN SUPP='1'B;
587 1 1 1 IF ~SUPP THEN DESL(KT)=DESNQ;
588 1 1 1 IF OPT=1 | OPT=4 THEN
589 1 1 1 CALL ITTMS;
590 1 1 1 IF OPT=2 | OPT=4 THEN
591 1 1 1 CALL ITFREQ;
592 1 1 1 IF OPT=3 & PI='1' THEN CALL PRINT;
593 1 1 1 END;
594 1 1 1 GOTO L31;
595 1 1 1
596 1 1 1
597 1 1 1
598 1 1 1
599 1 1 1
600 1 1 1
601 1 1 1
602 1 1 1
603 1 1 1 /*-----*/
604 1 1 1 L00: OPEN FILE(STUDENT) INPUT TITLE(FILN1);
605 1 1 1 ON ENDFILE(STUDENT)
606 1 1 1 BEGIN; CLOSE FILE(STUDENT);
607 1 1 1 OPEN FILE(STUDENT) INPUT TITLE(FILN1);
608 1 1 1 GOTO L01;
609 1 1 1 END;
610 1 1 1 VT=0; VST=0; DST=0; DSST=0; AHT=0; AHST=0; PFT=0; PFST=0;
611 1 1 1 VF=0; DSF=0; AHF=0; PFF=C; SF=0; SST=0; SSST=0;
612 1 1 1 DESL=''; KT=0; SUPP='0'B;
613 1 1 1 L02: GET EDIT(DESNQ2)(COL(1),A(8));
614 1 1 1 IF DESNQ2='*****' THEN
615 1 1 1 DO; PUT EDIT('TOTALS,MEANS,STANDARD DEVIATIONS AND FREQUENCY',
616 1 1 1 ' COUNTS FOR REQUEST='*')(SKIP(2),COL(1),A,A);
617 1 1 1 PUT EDIT(KT,'STUDENTS INCLUDED')(SKIP(3),COL(1),F(4),X(1),A);
618 1 1 1 IF KT=0 THEN GOTO L03;
619 1 1 1 IF ~SUPP THEN CALL SPNT;
620 1 1 1 PUT PAGE;
621 1 1 1 CALL ITPTMS;
622 1 1 1
623 1 1 1
624 1 1 1
625 1 1 1
626 1 1 1
627 1 1 1
628 1 1 1
629 1 1 1
630 1 1 1
631 1 1 1
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638 1 1 1

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STMT LEVEL NEST				
639	1	1	PUT PAGE;	10005430
640	1	1	CALL ITPFREQ;	10005440
641	1	1	DT=DATE;	10005450
642	1	1	DT=SUBSTR(DT,4,2) '/' SUBSTR(DT,1,2) '/'	10005460
			SUBSTR(DT,7,2);	10005470
643	1	1	PUT EDIT('DATE OF LISTING',DT)(SKIP(2),COL(1),A,X(1),A);	10005480
644	1	1	CLOSE FILE(STUDENT);	10005490
645	1	1	GOTO L39;	10005500
646	1	1	END;	10005510
647	1		L01: READ FILE(STUDENT) SET(PTR);	10005520
648	1		IF DESNO=DESNO2 THEN	10005530
649	1		DO; IF B THEN B='0'B;	10005540
652	1	1	IF SUBSTR(INTELB,YR,1)~='*' THEN	10005550
653	1	1	DO; PUT EDIT(DESNO,'HAS NO CORRESPONDING DATA')	10005560
			(COL(1),A,X(1),A);	10005570
			GOTO L02;	10005580
655	1	2	END;	10005590
656	1	2	KT=KT+1;	10005600
657	1	1	IF KT>1000 THEN SUPP='1'B;	10005610
658	1	1	IF ~SUPP THEN DESL(KT)=DESNO;	10005620
660	1	1	CALL ITTMS;	10005630
662	1	1	CALL ITPREQ;	10005640
663	1	1	GOTO L02;	10005650
664	1	1	END;	10005660
665	1	1	END; ELSE	10005670
666	1	1	DO; IF ~B THEN	10005680
668	1	1	DO; DESNO3=DESNO;	10005690
670	1	2	B='1'B;	10005700
671	1	2	END; ELSE	10005710
672	1	1	DO; IF DESNO=DESNO3 THEN	10005720
674	1	2	DO; PUT EDIT(DESNO2,'CANNOT BE FOUND....DATA IGNORED')	10005730
			(COL(1),A,X(1),A);	10005740
			R='0'B;	10005750
676	1	3	GOTO L02;	10005760
677	1	3	END;	10005770
678	1	3	END;	10005780
679	1	2	GOTO L01;	10005790
680	1	1	END;	10005800
681	1	1	END;	10005810
682	1		/*-----*/	10005820
683	1		L09: PUT PAGE;	
			END;	

ATTRIBUTE AND CROSS-REFERENCE TABLE

DCL NO.	IDENTIFIER	ATTRIBUTES AND REFERENCES
2	ADIP	IN EDUCATION IN RECORD,BASED(PTR),UNALIGNED,STRING(30),CHARACTER
2	ADIPC	IN EDUCATION IN RECORD,BASED(PTR),UNALIGNED,STRING(1),CHARACTER
2	***** AH4	(2,3)IN INTEL IN RECORD,BASEC(PTR),ALIGNED,BINARY,FIXED(15,0) 26,26,28,29,55,55,56,84,338
3	***** AHF	(0:130,3)AUTOMATIC,ALIGNED,BINARY,FIXED(15,0) 56,56,138,138,139,139,526,551,620
4	AHST	(2)AUTOMATIC,ALIGNED,DECIMAL,FLOAT(DOUBLE) 29,29,92,92,106,516,546,615
4	AHT	(2)AUTOMATIC,ALIGNED,DECIMAL,FLCAT(COUBLE) 28,28,92,106,106,515,546,614
2	ANNPROG	IN RECORD,BASED(PTR),STRUCTURE
2	AP	IN ANNPROG IN RECORD,BASED(PTR),UNALIGNED,STRING(802),CHARACTER 323
2	ATO	IN EDUCATION IN RECORD,BASED(PTR),UNALIGNED,STRING(1),CHARACTER 291
2	AUTH	IN GENERAL IN RECORD,BASED(PTR),UNALIGNED,STRING(19),CHARACTER 253
2	AUTHNO	IN GENERAL IN RECORD,BASED(PTR),UNALIGNED,STRING(1),CHARACTER 255
7	B	AUTOMATIC,UNALIGNED,STRING(1),BIT 420,650,651,667,670,676
2	BE	IN FINALS IN RECORD,BASED(PTR),UNALIGNED,STRING(1),CHARACTER 330
349	C	(6)AUTOMATIC,INITIAL,LABEL 356
357	C1	STATEMENT LABEL CONSTANT
360	C2	STATEMENT LABEL CONSTANT
363	C3	STATEMENT LABEL CONSTANT
366	C4	STATEMENT LABEL CONSTANT
369	C5	STATEMENT LABEL CONSTANT
372	C6	STATEMENT LABEL CONSTANT

DCL NO.		IDENTIFIER	ATTRIBUTES AND REFERENCES
		CHAP	GENERIC,BUILT-IN FUNCTION 345
218	*****	CLAB	(20) PARAMETER,ALIGNED,BINARY, FIXED(15,0) 217,389
161	*****	CLAB	(20) PARAMETER,ALIGNED,BINARY, FIXED(15,0) 160,190,196,210,210
5	*****	CLAB	(20) AUTOMATIC,ALIGNED,BINARY, FIXED(15,0) 533,538,588
2		CODES	(4) IN COURSE IN RECORD,BASED(PTR), UNALIGNED,STRING(3), CHARACTER 296
348	*****	COND	PARAMETER,ALIGNED,BINARY, FIXED(15,0) 347,356
2		CONF	IN GENERAL IN RECORD,BASED(PTR), UNALIGNED,STRING(1), CHARACTER 251
2		COURSE	IN RECORD,BASED(PTR), STRUCTURE
		DATE	BUILT-IN FUNCTION 462,641
2		DATT	(2) IN EDUCATION IN RECORD,BASED(PTR), UNALIGNED,STRING(6), CHARACTER
2		DC	(4,24:64) IN COURSE IN RECORD,BASED(PTR), UNALIGNED,STRING(1), CHARACTER 300,302,304,306,308,310,312,314,316,318
2		DC1	(4,26:30) IN COURSE IN RECORD,BASED(PTR), UNALIGNED,STRING(2), CHARACTER
2		DC46	(4) IN COURSE IN RECORD,BASED(PTR), UNALIGNED,STRING(3), CHARACTER 298
2		DC49	(4) IN COURSE IN RECORD,BASED(PTR), UNALIGNED,STRING(3), CHARACTER
2		DDIPC	IN EDUCATION IN RECORD,BASED(PTR), UNALIGNED,STRING(1), CHARACTER
2		DEG	(2) IN EDUCATION IN RECORD,BASED(PTR), UNALIGNED,STRING(3), CHARACTER 265
7		DESL	(1000) AUTOMATIC, UNALIGNED,STRING(8), CHARACTER 74,75,507,594,625,661
2		DESNO	IN RECORD,BASED(PTR), UNALIGNED,STRING(8), CHARACTER 17,24,31,41,49,53,57,63,84,559,567,576,583,594,648,654,661,669,673
7		DESNO2	AUTOMATIC, UNALIGNED,STRING(8), CHARACTER 628,629,648,675

DCL NO.	IDENTIFIER	ATTRIBUTES AND REFERENCES
7	DESND3	AUTOMATIC,UNALIGNED,STRING(8),CHARACTER 669,673
2	DOB	IN GENERAL IN RECORD,BASED(PTR),UNALIGNED,STRING(6),CHARACTER 231
2	DOB	IN GENERAL IN RECORD,BASED(PTR),UNALIGNED,STRING(1),CHARACTER
2	***** DSCALE	(2) IN INTEL IN RECORD,BASED(PTR),ALIGNED,BINARY,FIXED(15,0) 19,19,21,22,51,51,52,52,84,336
3	***** DSF	(0:300)AUTCMATIC,ALIGNED,BINARY,FIXED(15,0) 52,52,132,133,525,550,619
4	DSST	AUTOMATIC,ALIGNED,DECIMAL,FLCAT(DCUBLE) 22,22,91,91,102,514,545,613
4	DST	AUTOMATIC,ALIGNED,DECIMAL,FLCAT(DCUBLE) 21,21,91,102,102,513,545,612
7	DT	AUTOMATIC,UNALIGNED,STRING(8),CHARACTER 462,463,463,463,502,641,642,642,642,642,643
2	EDUCATION	IN RECORD,BASED(PTR),STRUCTURE
7	FILN1	AUTOMATIC,UNALIGNED,STRING(8),CHARACTER 408,459,603,607
7	FILN2	AUTCMATIC,UNALIGNED,STRING(8),CHARACTER 408
2	FINALS	IN RECORD,BASED(PTR),STRUCTURE
222	FIND	ENTRY,DECIMAL,FLOAT(SINGLE) 385
2	***** FK	(100,2) IN ANNPRDG IN RECORD,BASED(PTR),ALIGNED,BINARY,FIXED (15,0) 322,323,323
2	FPOS	IN GENERAL IN RECORD,BASED(PTR),UNALIGNED,STRING(4),CHARACTER 257
2	FPT	(1) IN EDUCATION IN RECORD,BASED(PTR),UNALIGNED,STRING(2),CHARACTER
2	FT	(2,2) IN EDUCATION IN RECORD,BASED(PTR),UNALIGNED,STRING(6),CHARACTER
2	GENERAL	IN RECORD,BASED(PTR),STRUCTURE
2	HPCD	(2) IN EDUCATION IN RECORD,BASED(PTR),UNALIGNED,STRING(4),CHARACTER
223	***** I	AUTOMATIC,ALIGNED,BINARY,FIXED(15,0) 227,230,233,271,272,273,274,282,283,284,285,286,287,295,296,300,302 304,306,308,310,312,314,316,318,321,322,323,323

DCL NO.	IDENTIFIER	ATTRIBUTES AND REFERENCES
221	***** I	AUTCMATIC,ALIGNED,BINARY,FIXED(15,0) 377,378,378,378,378,378,378,378,379,379,380,380,380,380,380,382,382,385,386,386,386,386,386,386,386,387,387,388,389,391,394,400,400
164	***** I	AUTOMATIC,ALIGNED,BINARY,FIXED(15,0) 168,169,172,186,187,191,197,200,201,201,203,204,204,206,207
117	***** I	AUTOMATIC,ALIGNED,BINARY,FIXED(15,0) 120,122,124,124,131,132,133,133,137,138,138,139,139,139,143,144,146,147,153,154,156
70	***** I	AUTOMATIC,ALIGNED,BINARY,FIXED(15,0) 72,73,74,75
1	***** I	ENTRY,BINARY,FIXED(15,0) GENERIC,BUILT-IN FUNCTION 186,320,379,387 IN RECORD,BASED(PTR),STRUCTURE IN INTEL IN RECORD,BASED(PTR),UNALIGNED,STRING(2),CHARACTER 556,652 PARAMETER,UNALIGNED,STRING(20),CHARACTER,VARYING 347,350,351,352,357,360,363,366,369,372 PARAMETER,UNALIGNED,STRING(20),CHARACTER,VARYING 222,235,237,239,241,243,245,247,249,251,253,255,257,259,261,263,265,267,278,291,293,296,298,300,302,304,306,308,310,312,314,316,318,323,324,326,328,330,332,345 AUTOMATIC,UNALIGNED,STRING(20),CHARACTER,VARYING 385,389 ENTRY,BINARY,FIXED(15,0) 598,663 ENTRY,BINARY,FIXED(15,0) 478,500,640 ENTRY,BINARY,FIXED(15,0) 477,498,638 ENTRY,BINARY,FIXED(15,0) 596,662 AUTOMATIC,ALIGNED,BINARY,FIXED(15,0) 232,233 AUTOMATIC,ALIGNED,BINARY,FIXED(15,0) 391,392,394
2	INTEL	
2	INTELB	
348	ITEM	
223	ITEM	
220	ITEM	
44	ITFREQ	
116	ITPFREQ	
87	ITPTMS	
9	ITTMS	
223	J	
221	J	

DCL NO.	IDENTIFIER	ATTRIBUTES AND REFERENCES
164	***** J	AUTOMATIC, ALIGNED, BINARY, FIXED(15,0) 181,182,190,196,207,208,208,209,209,210,210,211,211
117	***** J	AUTOMATIC, ALIGNED, BINARY, FIXED(15,0) 121,122,145,146,147,155,156
221	***** K	PARAMETER, ALIGNED, BINARY, FIXED(15,0) 217,377,382,391,400
164	***** K	PARAMETER, ALIGNED, BINARY, FIXED(15,0) 160,166,189,189,190,192,195,195,196,198,200,203,207,212,212
117	***** K	AUTOMATIC, ALIGNED, BINARY, FIXED(15,0) 124,124
88	***** K	AUTOMATIC, ALIGNED, BINARY, FIXED(15,0) 97,98,99,99,99,104,105,106,106,110,111,112,112,113,113,113
45	***** K	AUTOMATIC, ALIGNED, BINARY, FIXED(15,0) 46,47,47,48,48,48,49,54,55,55,56,56,56,57,59,60,60,61,61,61 61,63,66,66,66,66
10	***** K	AUTOMATIC, ALIGNED, BINARY, FIXED(15,0) 11,12,12,14,14,14,15,15,15,17,25,26,26,28,28,28,29,29,31,33,34,34 34,36,36,37,37,37,38,38,38,39,39,39,41
7	***** K	AUTOMATIC, ALIGNED, BINARY, FIXED(15,0) 536,538,539,588
223	***** KC	AUTOMATIC, ALIGNED, BINARY, FIXED(15,0) 233,269,275,275,280,288,288,334,336,338,340,342,344,345
7	***** KT	AUTOMATIC, ALIGNED, BINARY, FIXED(15,0) 72,79,90,90,91,91,92,92,93,93,94,94,99,102,106,112,113,470,471,484 492,493,506,590,591,594,626,632,633,657,657,658,661
603	L00	STATEMENT LABEL CCNSTANT 458
647	L01	STATEMENT LABEL CNSTANT 608,680
628	L02	STATEMENT LABEL CNSTANT 655,664,677
641	L03	STATEMENT LABEL CNSTANT 634
682	L09	STATEMENT LABEL CNSTANT 407,413
128	L1	STATEMENT LABEL CNSTANT 125

DCL NO.	IDENTIFIER	ATTRIBUTES AND REFERENCES
345	L1	STATEMENT LABEL CONSTANT 234,277,290,335,337,339,341,343
459	L1234	STATEMENT LABEL CONSTANT
479	L21	STATEMENT LABEL CONSTANT 472
555	L31	STATEMENT LABEL CONSTANT 560,569,578,584,587,602
408	L39	STATEMENT LABEL CONSTANT 504,542,645
501	L51	STATEMENT LABEL CONSTANT 494
202	L61	STATEMENT LABEL CONSTANT 173,179,185
186	L62	STATEMENT LABEL CONSTANT 183
403	L66	STATEMENT LABEL CONSTANT 383,395,401
164	***** LB	AUTOMATIC,ALIGNED,BINARY,FIXED(15,0) 172,191,191,197,197
7	LB	AUTOMATIC,UNALIGNED,STRING(1),BIT 435,436,571
2	LE	IN COURSE IN RECORD,BASED(PTR),UNALIGNED,STRING(1),CHARACTER 227
2	***** LEAP	IN ANNPROG IN RECORD,BASED(PTR),ALIGNED,BINARY,FIXED(15,0)
2	LEN	IN CCURSE IN RECORD,BASED(PTR),UNALIGNED,STRING(1),CHARACTER 293
	LENGTH	GENERIC,BUILT-IN FUNCTION 165,352,355
164	***** LK	AUTOMATIC,ALIGNED,BINARY,FIXED(15,0) 167,177,177,178
164	***** LL	AUTOMATIC,ALIGNED,BINARY,FIXED(15,0) 165,168
217	LDCTST	ENTRY,STRING(1),BIT 588
218	LOP	(20)PARAMETER,UNALIGNED,STRING(1),CHARACTER

Dataset Limited

DCL NO.	IDENTIFIER	ATTRIBUTES AND REFERENCES
161	LOP	217,382,392,400 (20) PARAMETER, UNALIGNED, STRING(1), CHARACTER 160,178,208,208
5	LOP	(20) AUTOMATIC, UNALIGNED, STRING(1), CHARACTER 532,538,588
7	LPR	AUTOMATIC, UNALIGNED, STRING(1), BIT 438,439,573
223	***** LR	PARAMETER, ALIGNED, BINARY, FIXED(15,0) 222,226,226,228,334,338,340,342,344
164	LR	AUTOMATIC, UNALIGNED, STRING(3), CHARACTER 191,192,197,198
2	MART	IN GENERAL IN RECORD, BASED(PTR), UNALIGNED, STRING(1), CHARACTER 237
6	***** MNT	(16) AUTOMATIC, ALIGNED, INITIAL, BINARY, FIXED(15,0) 34,60,146
	MOD	GENERIC, BUILT-IN FUNCTION 73,79
2	NAME	IN RECORD, BASED(PTR), UNALIGNED, STRING(40), CHARACTER
164	***** NB	AUTOMATIC, ALIGNED, BINARY, FIXED(15,0) 186,200,201
7	***** OPT	AUTOMATIC, ALIGNED, BINARY, FIXED(15,0) 409,410,410,445,464,464,466,468,476,480,489,509,522,530,558,588,588 588,588,595,595,597,597,599
2	OO	(2) IN EDUCATION IN RECORD, BASED(PTR), UNALIGNED, STRING(30), CHARACTER
2	OOC	(2) IN EDUCATION IN RECORD, BASED(PTR), UNALIGNED, STRING(4), CHARACTER
2	OV25	IN GENERAL IN RECORD, BASED(PTR), UNALIGNED, STRING(1), CHARACTER 247
163	PCOND	(6) AUTOMATIC, UNALIGNED, INITIAL, STRING(2), CHARACTER, VARYING 182
2	***** PF16	(2,16) IN INTEL IN RECORD, BASED(PTR), ALIGNED, BINARY, FIXED(15,0) 34,34,36,37,60,60,61,61,84,340,342,344
3	***** PFF	(0:26,16) AUTOMATIC, ALIGNED, BINARY, FIXED(15,0) 61,61,147,527,552,621
89	PFK	(16) AUTOMATIC, UNALIGNED, INITIAL, STRING(2), CHARACTER 111

Dataset Limited

DCL NO.	IDENTIFIER	ATTRIBUTES AND REFERENCES
4	PFST	(16)AUTOMATIC,ALIGNED,DECIMAL,FLOAT(DOUBLE) 37,37,93,93,112,518,547,517
4	PFT	(16)AUTOMATIC,ALIGNED,DECIMAL,FLOAT(DOUBLE) 36,36,93,112,112,517,547,616
7	PI	AUTOMATIC,UNALIGNED,STRING(1),CHARACTER 418,454,455,482,599
2	PNAME	IN GENERAL IN RECORD,BASED(PTR),UNALIGNED,STRING(17),CHARACTER
2	POCC	IN GENERAL IN RECORD,BASED(PTR),UNALIGNED,STRING(1),CHARACTER 243
78	PRINT	ENTRY,DECIMAL,FLOAT(SINGLE) 690
	PTR	AUTOMATIC,ALIGNED,POINTER 12,12,14,15,17,19,19,21,22,24,26,26,28,29,31,34,34,36,37,38,39,41,47 47,48,48,49,51,51,52,52,53,55,55,56,56,57,60,60,61,61,63,66,66,84,84 84,84,84,85,227,229,231,235,237,239,241,243,245,247,249,251,253,255 257,259,261,263,265,267,270,272,273,274,278,281,283,284,285,286,287 291,293,296,298,300,302,304,306,308,310,312,314,316,318,322,323,323 323,326,328,330,332,334,336,338,340,342,344,381,555,556,559,562,566 566,566,567,571,575,575,576,580,583,586,594,647,648,652,654,661 669,673
223	QC	AUTOMATIC,DEFINED,UNALIGNED,STRING(3),CHARACTER 285,285
223	QE	AUTOMATIC,DEFINED,UNALIGNED,STRING(3),CHARACTER 224,225,225,284,284
223	QG	AUTOMATIC,DEFINED,UNALIGNED,STRING(1),CHARACTER 286,286
223	QR	AUTOMATIC,DEFINED,UNALIGNED,STRING(1),CHARACTER 287,287
221	***** QS	AUTOMATIC,ALIGNED,BINARY,FIXED(15,0) 270,271,281,282
2	QUAL	(30)IN EDUCATION IN RECORD,BASED(PTR),UNALIGNED,STRING(10),CHARACTER 283,284,285,286,287
2	QUALNO	IN EDUCATION IN RECORD,BASED(PTR),UNALIGNED,STRING(2),CHARACTER 278,281
223	QY	AUTOMATIC,DEFINED,UNALIGNED,STRING(2),CHARACTER 283,283
223	R	(66)AUTOMATIC,INITIAL,LABEL 229,235,237,239,241,243,245,247,249,251,253,255,257,259,261,263,265 267,269,278,280,291,293,295,298,300,302,304,306,308,310,312,314,316

DCL NO.	IDENTIFIER	ATTRIBUTES AND REFERENCES
7	RB	319,320,326,328,330,332,334,334,334,334,334,336,338,338,338,340,340,340,340,342,342,342,342,344,344,344,228 AUTCMATIC,UNALIGNED,STRING(1),BIT 429,430,580
2	RECORD	BASED(PTR),STRUCTURE
2	REG	IN GENERAL IN RECORD,BASED(PTR),UNALIGNED,STRING(1),CHARACTER 241
2	REL	IN GENERAL IN RECORD,BASED(PTR),UNALIGNED,STRING(1),CHARACTER 249
223	REQI	PARAMETER,UNALIGNED,STRING(12),CHARACTER 222,320,320
219	REQI	AUTOMATIC,UNALIGNED,STRING(12),CHARACTER 379,381,385
219	REQM	AUTOMATIC,UNALIGNED,STRING(20),CHARACTER,VARYING 387,388,389
348	REQU	PARAMETER,UNALIGNED,STRING(20),CHARACTER,VARYING 347,353,354,355,357,360,363,366,369,372
162	REQUEST	PARAMETER,UNALIGNED,STRING(400),CHARACTER,VARYING 160,165,169,186,187,191,197,200
7	REQUEST	AUTOMATIC,UNALIGNED,STRING(400),CHARACTER,VARYING 419,457,491,537,538
218	RITEM	(20) PARAMETER,UNALIGNED,STRING(20),CHARACTER,VARYING 217,379,379,387,387,388
161	RITEM	(20) PARAMETER,UNALIGNED,STRING(20),CHARACTER,VARYING 160,200,211,211
5	RITEM	(20) AUTOMATIC,UNALIGNED,STRING(20),CHARACTER,VARYING 535,538,588
218	***** RLAB	(20) PARAMETER,ALIGNED,BINARY,FIXED(15,0) 217,378,378,378,378,378,378,378,378,380,380,380,380,380,385 386,386,386,386,386,386,386,386,386,386
161	***** RLAB	(20) PARAMETER,ALIGNED,BINARY,FIXED(15,0) 160,192,198,204,204,206,209,209
5	***** RLAB	(20) AUTOMATIC,ALIGNED,BINARY,FIXED(15,0) 534,538,588
7	RPB	AUTOMATIC,UNALIGNED,STRING(1),BIT 432,433,582

DCL NO. IDENTIFIER

ATTRIBUTES AND REFERENCES

SCARDS

FILE,EXTERNAL
406,408,409,421,628

2 SCH

(10) IN EDUCATION IN RECORD,BASED(PTR),UNALIGNED,STRING(5),CHARACTER
272,273,274

2 SCHNO

IN EDUCATION IN RECORD,BASED(PTR),UNALIGNED,STRING(2),CHARACTER
267,270

2 SET

IN GENERAL IN RECORD,BASED(PTR),UNALIGNED,STRING(1),CHARACTER
239

2 SEX

IN GENERAL IN RECORD,BASED(PTR),UNALIGNED,STRING(1),CHARACTER
235

3 ***** SF

(?:10,16)AUTCMATIC,ALIGNED,BINARY,FIXED(15,0)
66,66,156,528,553,622

2 SOCC

IN GENERAL IN RECORD,BASED(PTR),UNALIGNED,STRING(1),CHARACTER
245

69 SPNT

ENTRY,DECIMAL,FLOAT(SINGLE)
474,486,496,636

SPRINT

FILE,EXTERNAL
17,24,31,41,49,53,57,63,71,74,75,81,82,84,85,95,96,98,99,101,102,103
105,106,108,109,111,112,113,118,119,124,129,130,133,135,136,139,141
142,144,147,148,151,152,154,156,206,412,445,446,448,451,453,455,456
467,469,470,475,484,491,492,497,499,502,559,567,576,583,631,632,637
639,643,654,675,682

SORT

GENERIC,BUILT-IN FUNCTION
90,91,92,93,94

4 SSST

(16)AUTOMATIC,ALIGNED,DECIMAL,FLOAT(DOUBLE)
39,39,94,94,113,520,548,624

4 SST

(16)AUTOMATIC,ALIGNED,DECIMAL,FLOAT(DOUBLE)
38,38,94,113,113,519,548,623

223 ST

AUTOMATIC,DEFINED,UNALIGNED,STRING(1),CHARACTER
272,272,295

2 ***** STEN

(2,16) IN INTEL IN RECORD,BASED(PTR),ALIGNED,BINARY,FIXED(15,0)
38,39,66,66,85

8 STUDENT

FILE,EXTERNAL,RECORD,ENVIRONMENT(F(2416))
459,460,503,541,555,603,604,606,607,644,647

2 SUB

(2) IN EDUCATION IN RECORD,BASED(PTR),UNALIGNED,STRING(36),CHARACTER

2 SUBCAR

IN FINALS IN RECORD,BASED(PTR),UNALIGNED,STRING(1),CHARACTER
332

DCL NO.	IDENTIFIER	ATTRIBUTES AND REFERENCES
	SUBSTR	GENERIC,BUILT-IN FUNCTION 169,186,187,191,197,200,229,231,272,273,274,283,284,285,286,287,320 323,352,355,379,381,387,422,425,428,431,434,437,463,463,537 556,562,566,566,571,575,575,580,586,642,642,642,652
7	SUPP	AUTCMATIC,UNALIGNED,STRING(1),BIT 473,485,495,508,592,593,627,635,659,660
223	SYF	AUTCMATIC,DEFINED,UNALIGNED,STRING(2),CHARACTER 273,273
223	SYT	AUTCMATIC,DEFINED,UNALIGNED,STRING(2),CHARACTER 274,274
2	TC	IN FINALS IN RECORD,BASFD(PTR),UNALIGNED,STRING(1),CHARACTER 326
347	TEST	ENTRY,STRING(1),BIT 380
2	TITLE	IN GENERAL IN RECORD,BASED(PTR),UNALIGNED,STRING(2),CHARACTER 538
160	TRANS	ENTRY,DECIMAL,FLOAT(SINGLE) 538
	TRANSLATE	GENERIC,BUILT-IN FUNCTION 225,388
2	TTFT	(2,2) IN GENERAL IN RECOD,BASED(PTR),UNALIGNED,STRING(6),CHARACTER 229,259,381,562,566,566,571,575,575,575,580,586
2	UNCOL	(2) IN EDUCATION IN RECORD,BASED(PTR),UNALIGNED,STRING(21),CHARACTER 261
2	UNOTH	(2) IN EDUCATION IN RECORD,BASED(PTR),UNALIGNED,STRING(21),CHARACTER 263
2	***** VALUES	(2,6) IN INTEL IN RECORD,BASED(PTR),ALIGNED,BINARY,FIXED(15,0) 12,12,14,15,47,47,48,48,84,334
3	***** VF	(C:60,6)AUTOMATIC,ALIGNED,BINARY,FIXED(15,0) 48,48,122,124,524,549,618
4	VST	(6)AUTOMATIC,ALIGNED,DECIMAL,FLOAT(DOUBLE) 15,15,90,90,99,512,544,611
4	VT	(6)AUTOMATIC,ALIGNED,DECIMAL,FLOAT(DOUBLE) 14,14,90,99,99,511,544,610
7	WB	AUTOMATIC,UNALIGNED,STRING(1),BIT 423,424,562,586
7	WCR	AUTOMATIC,UNALIGNED,STRING(1),CHARACTER 416,450,451,452,586,586

DCL NO.	IDENTIFIER	ATTRIBUTES AND REFERENCES
7	WD	AUTOMATIC, UNALIGNED, STRING(8), CHARACTER 566,567,575,576
7	WPR	AUTOMATIC, UNALIGNED, STRING(1), BIT 426,427,564
7	WRL	AUTOMATIC, UNALIGNED, STRING(3), CHARACTER 415,422,425,428,431,434,437,447,448,449
2	WS	IN FINALS IN RECORD, BASED(PTR), UNALIGNED, STRING(1), CHARACTER 328
164	X1	AUTOMATIC, UNALIGNED, STRING(1), CHARACTER 169,170,175,178,182
223	X2	AUTOMATIC, UNALIGNED, STRING(2), CHARACTER 229,230,231,232
348	X2C	AUTOMATIC, UNALIGNED, STRING(20), CHARACTER, VARYING 350,352,352,353,355,355
223	XVAR	AUTOMATIC, UNALIGNED, STRING(3), CHARACTER, VARYING 320,321
2	YC	IN GENERAL IN RECORD, BASED(PTR), UNALIGNED, STRING(2), CHARACTER
7	YE	AUTOMATIC, UNALIGNED, STRING(4), CHARACTER 408,445,467,469,484
223	***** YR	PARAMETER, ALIGNED, BINARY, FIXED(15,C) 222,334,336,338,340,342,344
220	***** YR	PARAMETER, ALIGNED, BINARY, FIXED(15,0) 217,385
7	***** YR	AUTOMATIC, ALIGNED, BINARY, FIXED(15,0) 12,12,14,15,19,19,21,22,26,26,28,29,34,34,36,37,38,39,47,47,48,48,51 51,52,52,55,55,56,56,60,60,61,61,66,66,84,84,84,84,85,441,443,444 556,588,652
7	YT	AUTOMATIC, UNALIGNED, STRING(1), CHARACTER 417,440,442,453

AGGREGATE LENGTH TABLE

STATEMENT NO.	IDENTIFIER	LENGTH IN BYTES
3	AHF	786
4	AHST	16
4	AHT	16
349	C	48
5	CLAB	40
7	DESL	9000
3	DSF	602
5	LDP	20
6	MNT	32
163	PCOND	12
3	PFF	864
89	PFK	32
4	PFST	128
4	PFT	128
223	R	528
2	RECORD	2416
5	RITEM	400
5	RLAB	40
3	SF	352
4	SSST	128
4	SST	128
3	VF	732
4	VST	48
4	VT	48

Page 1 of 1

STORAGE REQUIREMENTS.

THE STORAGE AREA FOR THE PROCEDURE LABELLED I IS 14768 BYTES LONG.
THE STORAGE AREA FOR THE PROCEDURE LABELLED ITTWS IS 964 BYTES LONG.
THE STORAGE AREA FOR THE PROCEDURE LABELLED ITFREQ IS 944 BYTES LONG.
THE STORAGE AREA FOR THE PROCEDURE LABELLED SPNT IS 932 BYTES LONG.
THE STORAGE AREA FOR THE PROCEDURE LABELLED PRINT IS 1044 BYTES LONG.
THE STORAGE AREA FOR THE PROCEDURE LABELLED ITPTWS IS 1080 BYTES LONG.
THE STORAGE AREA FOR THE PROCEDURE LABELLED ITPFREQ IS 984 BYTES LONG.
THE STORAGE AREA FOR THE PROCEDURE LABELLED TRANS IS 1140 BYTES LONG.
THE STORAGE AREA FOR THE PROCEDURE LABELLED LOCTST IS 1128 BYTES LONG.
THE STORAGE AREA FOR THE PROCEDURE LABELLED FIND IS 1644 BYTES LONG.
THE STORAGE AREA FOR THE PROCEDURE LABELLED TEST IS 1076 BYTES LONG.
THE STORAGE AREA FOR THE ON UNIT AT STATEMENT NO. 406 IS 896 BYTES LONG.
THE STORAGE AREA FOR THE ON UNIT AT STATEMENT NO. 461 IS 1028 BYTES LONG.
THE STORAGE AREA FOR THE ON UNIT AT STATEMENT NO. 605 IS 928 BYTES LONG.
THE PROGRAM CSECT IS NAMED I AND IS 61812 BYTES LONG.
THE STATIC CSECT IS NAMED *****IA AND IS 8141 BYTES LONG.

STATISTICS SOURCE RECORDS = 582,PROG TEXT STMENTS = 683,OBJECT BYTES = 61812

COMPILER DIAGNOSTICS.

WARNINGS.

MEM02271 NO FILE/STRING OPTION SPECIFIED IN ONE OR MORE GET/PUT STATEMENTS. SYSIN/SYSPRINT HAS BEEN ASSUMED IN EACH CASE.

MEM07641 ONE OR MORE FIXED BINARY ITEMS OF PRECISION 15 OR LESS HAVE BEEN GIVEN HALFWORD STORAGE. THEY ARE FLAGGED '*****' IN THE XREF/ATR LIST.

MEM17901 DATA CONVERSIONS WILL BE DONE BY SUBROUTINE CALL IN THE FOLLOWING STATEMENTS 192, 198, 227, 230, 232, 270, 281, 295, 321.

END OF DIAGNOSTICS.

COMPILE TIME 68.95 SECS

ELAPSED TIME 210.22 SECS

EXECUTION TERMINATED

6. PROGRAMME C.

6.2 PROGRAMME LISTING

THIS SECTION CONTAINS A LISTING OF THE SOURCE CODE OF PROGRAMME D.

```

END;
DCL NMON ENTRY(CHAR(2)) RETURNS(CHAR(1));
/*****
DKEY:PROCEDURE(RC);
/

```

[illegible]

```

56 DCL RC CHAR(80), MON CHAR(1);
57 SUBSTR(RC,1,7)=SUBSTR(DESN0,1,2) || SUBSTR(DESN0,4,5);
58 IF SEX='M' THEN SUBSTR(PC,8,1)='1'; ELSE SUBSTR(PC,8,1)='2';
59 MON=MON0(SUBSTR(C0R,3,2));
60 SUBSTR(RC,9,5)=SUBSTR(D0R,1,2) || MON || SUBSTR(C0R,5,2);
61 SUBSTR(RC,14,6)=SUBSTR(NAME,1,INDEX(NAME,'')-1);
62 END;
63 /*****
64 DCCUR=PROCEDURE(PC,1);
65   DCL RC CHAR(80), MON CHAR(1), I FIXED BINARY;
66   SUBSTR(RC,21,1)='F';
67   IF DC(I,24)~=' ' THEN SUBSTR(PC,24,1)='1';
68   IF DC(I,25)~=' ' THEN SUBSTR(RC,25,1)='1';
69   MON=MON0(DC(I,26));
70   SUBSTR(PC,26,3)=MON || DC(I,27);
71   MON=MON0(DC(I,29));
72   SUBSTR(PC,29,3)=MON || DC(I,30);
73   IF LEN~='1' THEN SUBSTR(PC,32,1)=DC(I,32);
74   SUBSTR(RC,34,5)=DC(I,34) || DC(I,35) || DC(I,36) || DC(I,37)
75   || DC(I,38);
76   SUBSTR(RC,41,2)=DC(I,41) || DC(I,42);
77   IF DC(I,59)~=' ' || DC(I,59)~=' ' & SUBSTR(UNOTH(1),1,1)='F' THEN
78     DO; SUBSTR(RC,43,1)=DC(I,43);
79     IF DC(I,44)~=' ' THEN SUBSTR(RC,44,1)='1';
80     SUBSTR(RC,45,1)=DC(I,45);
81     SUBSTR(RC,46,6)=DC46(I) || DC49(I);
82   END;
83   IF DC(I,59)~=' ' & SUBSTR(UNOTH(1),1,1)='B' THEN
84     SUBSTR(RC,59,1)=DC(I,59);
85     SUBSTR(RC,64,1)=DC(I,64);
86   END;
87 /*****
88   QUALC=PROCEDURE(C);
89   DCL C(5) CHAR(80), (B11,B61) BIT(1), (CAQ,COQ,CSEQ) PICTURE'99',
90   (Q,I,J) FIXED BINARY;
91   DCL QUAL2 CHAR(10), QT CHAR(3) DEFINED QUAL2 POS(3), QC CHAR(3)
92   DEFINED QUAL2 POS(6), QG CHAR(1) DEFINED QUAL2 POS(9), QP CHAR(1)
93   DEFINED QUAL2 POS(10), AQT(20) CHAR(4), OQT(30) CHAR(3);
94   COQ=0; CAQ=0; CSEQ=0; AQT=''; OQT='';
95   B61='1'B;
96   B11='1'B;
97   Q=QUALNO;
98   DO I=1 TO Q;
99     QUAL2=QUAL(I);
100    IF QT=' A' & QP='P' THEN
101      DO; DO J=1 TO CAQ;
102        IF QC=SUBSTR(AQT(J),1,3) THEN
103          DO; IF QG>SUBSTR(AQT(J),4,1) THEN AQT(J)=QC || QG;
104          GOTO L2;
105        END;
106        CAQ=CAQ+1;
107        AQT(CAQ)=QC || QG;
108      END; ELSE
109      IF (QT=' O' & QP='P') |
110      (QT=' A' & QP='F' & QG='O') THEN
111      DO; DO J=1 TO COQ;
112        IF QC=OQT(J) THEN GOTO L2;
113      END;
114      COQ=COQ+1; OQT(COQ)=QC;
115    END;
116  /* CONVERSION */
117  /* GCE A */
118  /* GCE O */
119  /*

```

```

/* D.E.S.NO.
/* SEX
/* DATE OF BIRTH
/*
/* SURNAME (1*ST 6 CHARACTERS ONLY)
/*
/* *****
/* DETAILS OF COURSE
/* *****
/* FULL TIME STUDENT
/* YEAR CF CCURSE
/* REPETITION
/* START CATE
/*
/* EXPECTED END DATE
/*
/* A.T.O. SHORTENED COURSE
/* SCOPE OF TRAINING
/*
/*
/* NON PGCE STUDENTS
/* -> NO. OF MAIN SUBJECTS
/* -> NO. OF SUBSIUARY SUBJECTS
/* -> UNDECIDED
/* -> SUBJECT CODES.
/*
/* PGCE STUDENTS
/* -> RECORD PGCE
/* B.ED COURSE
/*
/* *****
/* QUALIFICATION CALCULATION ROUTINE
/* *****
/* VARIABLE DECLARATIONS
/*
/*
/* INITIALISE VARIABLES
/* INITIALISE ENGLISH OBTAINED BIT
/* INITIALISE MATHEMATICS OBTAINED BIT
/* CALCULATE NO. OF QUALIFICATIONS
/*
/* CONSIDER FIRST/NEXT QUALIFICATION
/* LOCATE A'LEVEL PASSES
/*
/* -> A'LEVEL ALREADY RECORD
/* -> RE-RECORD IF BETTER GRADE
/* -> BRANCH FOR NEXT QUALIFICATION
/*
/*
/* -> UPDATE A'LEVEL COUNTER
/* -> ADD TO A'LEVEL LIST
/*
/* LOCATE O'LEVEL PASSES, OR
/* A'LEVEL FAILS WITH O'LEVEL AWARD
/*
/* -> O'LEVEL ALREADY RECORDED, BRANCH
/*
/* -> UPDATE COUNTER AND ADD TO LIST
/*

```

```

116       GOTO L1;
117     END; ELSE
118     IF QT='CSE' & QP='P' & QG='1' THEN          /* CSE 1 */
119     DO; DO J=1+1 TO Q;
120         IF SUBSTR(QUAL(J),3,3)=' ' C' & SUBSTR(QUAL(J),10,1)='P'
121         & SUBSTR(QUAL(J),6,3)=SUBSTR(QUAL(1),6,3) THEN GOTO L1;
122     END;
123     CSEQ=CSEQ+1;
124     GOTO L1;
125   END; ELSE
126   IF QT='SCC' & QP='P' & (QC='061' | QC='046') THEN /* SCC */
127   DO; SUBSTR(C(3),20,1)='1';
128       GOTO L1;
129   END; ELSE
130   IF QG='S' & QP='P' THEN /* DRELQ */
131   DO; IF SUBSTR(C(4),32,4)=' ' THEN
132       SUBSTR(C(4),32,4)='0' | QC; ELSE
133       IF SUBSTR(C(4),36,4)=' ' THEN
134       SUBSTR(C(4),36,4)='0' | QC;
135       C4FLAG='1'B;
136   END;
137   GOTO L2;
138   IF QC='061' & B61 THEN /* 61E11 */
139   DO; B61='0'B;
140       SUBSTR(C(3),28,1)='1';
141       GOTO L2;
142   END;
143   IF QC='011' & B11 THEN
144   DO; B11='0'B;
145       SUBSTR(C(3),29,1)='1';
146   END;
147   L2: END;
148   SUBSTR(C(3),21,2)=CSEQ; /* CSE 1 */
149   SUBSTR(C(3),23,2)=CQC; /* CONVERSION */
150   DO I=1 TO CAQ; /* CONVERSION */
151       DO J=1 TO NALC;
152           IF SUBSTR(AQT(I),1,3)=ATAB(J) THEN
153           DO; IF SUBSTR(AQT(I),4,1)='X' THEN SUBSTR(C(3),ATAB(J),1)
154           ='P'; ELSE SUBSTR(C(3),ATAB(J),1)=SUBSTR(AQT(I),4,1);
155           GOTO L3;
156       END;
157   END;
158   PUT EDIT(DESNO,'A.LEVEL CODE',SUBSTR(AQT(I),1,3),'NOT FOUND')
159   (SKIP,COL(1),A,3(X(1),A));
160   L3: END;
161   SUBSTR(C(3),25,2)=CAQ; /* GCE A */
162   END; /* CONVERSION */
163   /*****
164   DESADM:PROCEDURE;
165   DCL C(5) CHAR(80), CNAME CHAR(18), CFNAME CHAR(31), MON CHAR(1),
166   FIRST CHAR(1),(I,ESNAME,POS) FIXED BINARY;
167   C=' '; CNAME=' '; CFNAME=' ';
168   ESNAME=INDEX(NAME,' '); /* NAME */
169   CNAME=SUBSTR(NAME,1,ESNAME-1);
170   CFNAME=SUBSTR(NAME,ESNAME+2); /* FNAME */
171   CALL DKEY(C(5));
172   DO I=2 TO 4;
173       SUBSTR(C(I),1,19)=SUBSTR(C(5),1,19);
174   END;
175   SUBSTR(C(1),1,13)=SUBSTR(C(5),1,13);

```

```

/* -> BRANCH TO ENG/MATHS ROUTINE
/*
/* LOCATE CSE GRADE 1 PASSES
/*
/* -> TEST FOR 0'LEVEL IN SAME SUBJECT
/* -> BRANCH TO ENG/MATHS ROUTINE
/*
/*
/*
/* LOCATE SCHOOL CERTIFICATE PASSES
/* -> RECDP PASS
/* -> BRANCH TO ENG/MATHS ROUTINE
/*
/* LOCATE OTHER RELEVANT QUALIFICATIONS
/* -> RRCORD CODE
/*
/* -> RECORD CODE
/*
/* -> SET OPTCNAL CARD 4 BIT
/*
/* -> BRANCH FOR NEXT QUALIFICATION
/* ENGLISH AWARD ROUTINE
/* -> SET ENGLISH OBTAINED BIT
/* -> RECORD QUALIFICATION
/* -> BRANCH FOR NEXT QUALIFICATION
/*
/* MATHEMATICS AWARD ROUTINE
/* -> SET MATHEMATICS OBTAINED BIT
/* -> RECORD QUALIFICATION
/*
/* BRANCH FOR NEXT QUALIFICATION
/* RECORD CSE QUALIFICATIONS
/* RECORD 0'LEVEL QUALIFICATIONS
/* RECORD A'LEVEL GRADES
/*
/* -> LOCATE QUALIFICATION CODE IN ATAB
/* -> RECORD GRADE OR 'P' IF PASS AND
/* -> GRADE UNKNOWN
/* -> BRANCH FOR NEXT A'LEVEL
/*
/*
/* -> CLASS K ERROR/WARNING
/*
/*
/* RECORD A'LEVEL QUALIFICATIONS
/*
/*
/* RECORD ADMISSIONS
/*
/* VARIABLE DECLARATIONS
/* INITIALISE VARIABLES
/* CALCULATE POSITION 'END OF SURNAME'
/* SURNAME
/* CHRISTIAN NAME(S)
/* CALL CARD KEY ROUTINE, CARD(5)
/*
/* SET KEYS CARDS(2->4)
/*
/* SET KEYS CARD(1)
/*

```

```

176 IF DOBC=' ' THEN SUBSTR(C(1),14,1)='1';
177 SUBSTR(C(1),15,18)=CNAME;
178 SUBSTR(C(1),33,31)=CFNAME;
179 SUBSTR(C(*),74,3)=C9C';
180 SUBSTR(C(*),77,2)='01';
181 SUBSTR(C(1),79,2)='01';
182 SUBSTR(C(2),22,17)=PNAMF;
183 MON=NMGN(SUBSTR(TTFT(1,1),3,2));
184 SUBSTR(C(2),42,5)=SUBSTR(TTFT(1,1),1,2) || MON ||
185 SUBSTR(TTFT(1,1),5,2);
186 SUBSTR(C(2),47,4)='9625';
187 SUBSTR(C(2),70,1)=AUTHND;
188 FIRST=SUBSTR(AUTH,1,1);
189 POS=INDEX(ALPHA,FIRST);
190 IF POS=0 THEN GOTO L6;
191 DO I=AK(2,POS) TO AK(3,POS);
192 IF AUTH=AUTR(I) THEN
193 DO; SUBSTR(C(2),39,3)=AUTR1(I);
194 GOTO L6;
195
196 END;
197 PUT EDIT(DESND,'AUTHORITY CODE',AUTH,'NOT FOUND')
198 (SKIP,COL(1),A,3(X(1),A));
199 SUBSTR(C(2),71,1)=OV25;
200 SUBSTR(C(2),79,2)='02';
201 CALL QUALC(C);
202 SUBSTR(C(3),79,2)='03';
203 IF ADIPC=' ' | DDIPC=' ' | OQC(1)=' ' | OQC(2)=' '
204 | ATO=' ' THEN
205 DO; C4FLAG='1'B;
206 SUBSTR(C(4),22,1)=ADIPC;
207 SUBSTR(C(4),23,1)=DDIPC;
208 SUBSTR(C(4),24,4)=OQC(1);
209 SUBSTR(C(4),28,4)=OQC(2);
210 SUBSTR(C(4),44,1)=ATO;
211 END;
212 SUBSTR(C(4),79,2)='04';
213 I=1;
214 CALL DCOUR(C(5),I);
215 SUBSTR(C(5),79,2)='05';
216 IF C4FLAG THEN PUT FILE(SPUNCH) EDIT(C(*))(5(A(8C))); ELSE
217 PUT FILE(SPUNCH) EDIT(C(1),C(2),C(3),C(5))(4(A(8C)));
218 END;
219 /*****
220 DESWOL:PROCEDURE;
221 DCL C CHAR(80), MON CHAR(1), I FIXED BINARY;
222 C=' ';
223 CALL DKEY(C);
224 IF TRANS='99' THEN GOTO L1;
225 MON=NMGN(SUBSTR(TTFT(1,2),3,2));
226 SUBSTR(C,20,5)=SUBSTR(TTFT(1,2),1,2) || MON || SUBSTR(TTFT(1,2),
227 5,2);
228 SUBSTR(C,25,4)='9625';
229 SUBSTR(C,29,1)=SUBSTR(TTFT(2,1),6,1);
230 MON=NMGN(SUBSTR(TTFT(1,2),3,2));
231 SUBSTR(C,30,3)=MON || SUBSTR(TTFT(1,2),5,2);
232 GOTO L2;
233 IF TC=' ' THEN SUBSTR(C,40,1)=TC; ELSE
234 IF WS=' ' THEN SUBSTR(C,40,1)=WS; ELSE
235 IF BE=' ' THEN SUBSTR(C,40,1)=BE;

L1: IF TC=' ' THEN SUBSTR(C,40,1)=TC; ELSE
IF WS=' ' THEN SUBSTR(C,40,1)=WS; ELSE
IF BE=' ' THEN SUBSTR(C,40,1)=BE;

/* FINRS */

```

```

/* DATE OF BIRTH
/* SURNAME
/* CHRISTIAN NAME(S)
/* BATCH NUMBER
/* TRANSACTION NUMBER
/* CARD NUMBER '01'
/* PREVIOUS SURNAME
/* START DATE
/*
/* ESTABLISHMENT NUMBER
/* AUTHORITY/COUNTRY NUMBER
/* CALCULATION OF AUTHORITY CODE
/* -> LOCATE GROUP
/* -> BRANCH IF GROUP ZERO
/*
/* -> LOCATE AUTHORITY/COUNTRY
/* -> RECORD CODE
/* -> BRANCH OUT OF LOOP
/*
/*
/* -> CLASS K ERROR/WARNING
/*
/* OVER 25 OCCUPATION
/* CARD NUMBER '02'
/* CALL QUALIFICATION CALCULATION ROUTINE
/* CARD NUMBER '03'
/* LOCATE OTHER ART QUALIFICATIONS
/*
/* -> SET OPTIONAL CARD 4 BIT
/* -> ART DIPLOMA
/* -> NATIONAL DIPLOMA
/* -> OTHER ART QUALIFICATIONS
/* -> OTHER ART QUALIFICATIONS
/* -> EXCEPTED BY A.T.O.
/*
/* CARD NUMBER '04'
/* SET I=1'ST ENTRY
/* CALL DETAILS OF COURSE
/* CARD NUMBER '05'
/* OUTPUT TO SPUNCH CARDS (1->5), OR
/* OUTPUT TO SPUNCH CARDS (1->3 & 5)
/*
/*
/* WITHDRAWAL/END OF COURSE
/*
/* CALL KEY ROUTINE
/* BRANCH IF END OF COURSE
/* WITHDRAWAL DATE
/*
/* ESTABLISHMENT NUMBER
/* WITHDRAWAL REASON
/* WITHDRAWAL DATE
/*
/* BRANCH TO END OF CARD
/* TEACHER'S CERTIFICATE
/* WING SCIENCE
/* B.ED. RESULT
/*

```

```

236 SUBSTR(C,41,1)='1'; /* DEGREE */
237 SUBSTR(C,42,1)=SUBCAR; /* SUBCR */
238 MON=NMON(SUBSTR(TTFT(1,2),3,2)); /* TONAT */
239 SUBSTR(C,43,5)=SUBSTR(TTFT(1,2),1,2) || MON || SUBSTR(TTFT(1,2),
240 5,2); /* ESTNO */
241 SUBSTR(C,48,4)='9625'; /* ESTNO */
242 SUBSTR(C,77,2)='12'; /* TRANS */
243 SUBSTR(C,74,3)='990';
244 PUT FILE(SPUNCH) EDIT(C)(A(80));
245
246 /*****
247 DESCOCCH:PROCEDURE;
248 DCL C(2) CHAR(8), MON CHAR(1), I FIXED BINARY;
249 C='';
250 CALL DKEY(C(1));
251 SUBSTR(C(2),1,19)=SUBSTR(C(1),1,19);
252 SUBSTR(C(*),74,3)='999';
253 SUBSTR(C(*),77,2)=TRANS;
254 SUBSTR(C(1),47,4)='9625'; /* ESTNO */
255 SUBSTR(C(1),79,2)='02'; /* C.NO2 */
256 SUBSTR(C(2),79,2)='05'; /* C.NO5 */
257 IF TRANS='15' THEN I=1; ELSE I=LE; /* CONVERSION */
258 CALL DCOUR(C(2),I);
259 IF TRANS='15' THEN
260 DO; MON=NMON(SUBSTR(TTFT(1,1),3,2)); /* START */
261 SUBSTR(C(1),42,5)=SUBSTR(TTFT(1,1),1,2) || MON ||
262 SUBSTR(TTFT(1,1),5,2);
263
264 END;
265 PUT FILE(SPUNCH) EDIT(C*)(2(A(80)));
266
267 /*****
268 ON ENDFILE(DIC) GOTO L49;
269 GET EDIT(FILN1,FILN2,YE)(COL(1),A(8),X(1),A(8),X(1),A(4));
270 GET DATA;
271 IF DES=' ' THEN
272 DO; PUT EDIT('TRANSACTION FILE NOT SPECIFIED...EXECUTION',
273 'TERMINATED')(PAGE,COL(1),A,A);
274 GOTO L49;
275 END;
276 PUT EDIT('BCRS...REDE COLLEGE RECORD SYSTEM','PROGRAMME D',
277 'YEAR REQUESTED',YE)(PAGE,COL(1),A,SKIP(2),COL(1),A,COL(1),A,
278 COL(30),A);
279 PUT SKIP(2);
280 B='0'B;
281 OPEN FILE(STUDENT) INPUT TITLE(FILN1);
282 OPEN FILE(DIC) INPUT TITLE(DES);
283 CALL CON(FILN2);
284
285 /*****
286 ON ENDFILE(STUDENT)
287 BEGIN; CLOSE FILE(STUDENT);
288 OPEN FILE(STUDENT) INPUT TITLE(FILN1);
289 GOTO L41;
290
291 END;
292 L42: GET FILE(DIC) EDIT(DESNO2,TRANS)(COL(1),A(8),A(2));
293 IF TRANS='01' & TRANS='11' & TRANS='12' & TRANS='15' &
294 TRANS='99' THEN
295 DO; PUT EDIT(DESNO2,'TRANSACTION IN ERROR...TRANSACTION IGNORED')
(COL(1),A,X(1),A);
GOTO L42;
END;

```

```

/* DEGREE VERIFIED
/* SUBSEQUENT CAREER
/* TO DATE
/*
/* ESTABLISHMENT NUMBER
/* TRANSACTION NUMBER
/* BATCH NUMBER
/* OUTPUT CARD TO SPUNCH
/*
/* *****
/* CHANGE CF COURSE/SUBJECT/COLLEGE
/* *****
/*
/* CALL KEY ROUTINE
/* SET KEYS CARD(2)
/* BATCH NUMBER
/* TRANSACTION NUMBER
/* ESTABLISHMENT NUMBER
/* CARD NUMBER '02'
/* CARD NUMBER '05'
/* SET I=LATEST ENTRY
/* CALL DETAILS CF COURSE
/*
/* START CATE
/*
/* OUTPUT TO SPUNCH CARDS(1 & 2)
/*
/* *****
/* SET ENDFILE (DIC) ROUTINE
/* INPUT OPTION PARAMETER CARD
/* INPUT OPTION PARAMETERS
/* TEST FOR TRANSACTION FILE
/* -> CLASS B ERROR/WARNING MESSAGE
/*
/* -> BRANCH TC END CF PROGRAMME
/*
/* OUTPUT TITLES
/*
/* OPEN FILE STUDENT
/* OPEN FILE DIC
/* CALL CON (INPUT OF DATA CONSTANTS)
/*
/* SET ENDFILE (STUDENT) ROUTINE
/* -> CLOSE FILE
/* -> OPEN FILE
/* -> BRANCH FOR FIRST RECORD
/* ENDFILE ROUTINE
/* INPUT FIRST/NEXT DES.NO. & TRANS. NO.
/* TEST TRANS. NO.
/*
/* -> CLASS J ERROR/WARNING
/*
/* BRANCH FOR NEXT NUMBER
/*

```



```
356 GET FILE(CONST) EDIT(AUTR(1),AUTR(1))
357 (COL(1),A(19),COL(49),A(3));
358 END;
359
360 GET FILE(CONST) EDIT((OAK(K) DO K=1 TO 4))(4(COL(1),A(49)));
361 GET FILE(CONST) EDIT((GFK(K) DO K=1 TO 6))(6(COL(1),A(30)));
362 GET FILE(CONST) EDIT((OPSK(K) DC K=1 TO 6))(6(COL(1),A(49)));
363 GET FILE(CONST) EDIT((SCK(I) DO I=1 TO 9))(9(COL(1),A(60)));
364 GET FILE(CONST) EDIT((PSOK(I) DO I=1 TO 5))(5(COL(1),A(65)));
365 GET FILE(CONST) EDIT((STK(I) DO I=1 TO 6))(6(COL(1),A(50)));
366 GET FILE(CONST) EDIT((MK(I) DO I=1 TO 3))(3(COL(1),A(12)));
367 GET FILE(CONST) EDIT((OK(I) DO I=1 TO 10))(10(COL(1),A(35)));
368 GET FILE(CONST) EDIT((RK(I) DO I=1 TO 5))(5(COL(1),A(39)));
369 GET FILE(CONST) EDIT((GRK(I) DO I=1 TO 11))(11(COL(1),A(30)));
370 GET FILE(CONST) EDIT(ALPHA)(COL(1),A(26));
371 GRC=SUBSTR(ALPHA,1,11);
372 GET FILE(CONST) EDIT(NALC)(COL(1),F(3));
373 ALLOCATE ATAB(NALC),ATAB1(NALC);
374 GET FILE(CONST) SKIP;
375 GET FILE(CONST) EDIT((ATAB(I),ATAB1(I) DO I=1 TO NALC)
376 (X(2),A(3),X(1),F(2)));
377 DO I=1 TO 2;
378 DO J=1 TO 16;
379 GET FILE(CONST) LIST((NORM(I,J,K) DO K=1 TO 10));
380 GET FILE(CONST) LIST((NORM2(I,J,K) DO K=1 TO 2));
381 END;
382 END;
383 CLOSE FILE(CONST);
384 END;
```

```
/* -> INPUT AUTHCRITY/COUNTRY & CODES
/*
/*
/*
/*
/* INPUT AREA CODES (PRE 1972)
/* INPUT RELIGION CODES (PRE 1972)
/* INPUT PARENT/STUDENT OCC.CODES (PRE 1972)
/* INPUT SCHOOL CODES
/* INPUT PARENT/STUDENT OCC. CODES
/* INPUT SETTLEMENT CODES
/* INPUT MARITAL STATUS CODES
/* INPUT EVER 25 OCC. CODES
/* INPUT RELIGION CODES
/* INPUT REGICA CODES
/* INPUT ALPHARET
/* GEOGRAPHICAL REGION KEYS
/* INPUT A*LEVEL NUMBER
/* -> ALLOCATE STORAGE
/*
/* -> INPUT A*LEVEL CODES & COLUMNS
/*
/*
/*
/*
/* INPUT NORM TABLES
/*
/*
/* CLCSE CGNST
/* END PROCEDURE CON
/*
```

6. PROGRAMM D.

6.3 COMPILER LISTING

THIS SECTION CONTAINS A LISTING OF THE OUTPUT PROVIDED BY THE PL/1 F COMPILER DURING THE COMPILATION OF PROGRAMME D.

THE JCL WAS AS FOLLOWS:

\$RUN *PL1 SPUNCH=-D

PROGRAMME D SOURCE DECK

```
%PROCESS;
```

PROCEDURE CON SOURCE DECK

\$ENDFILE

THE COMPLETE LIST OF OPTICNS USED DURING THIS COMPIATION IS--

EBCCIC
CHAR60
NOMACRO
SOURCE2
NOMACCCK
COMP
SOURCE
ATR
XREF
NOEXTRFF
NOLIST
NLOAD
DECK
FLAGW
STMT
SIZE=010P
LINECNT=060
OPT=01
SCRMGIN=(001,072)
NEST
OPLIST

OPTIONS IN EFFECT
OPTIONS IN EFFECT
OPTIONS IN EFFECT
EBCCIC,CHAR60,NOMACRO,SOURCE2,NOMACDCK,COMP,SCURCE,ATR,XREF,NOEXTRFF,NOLIST,NLOAD,
DECK,FLAGW,STMT,SIZE=010P,LINECNT=060,OPT=01,SCRMGIN=(001,072),
NEST,OPLIST

STMT LEVEL NEST

```
21 2 SUBSTR(PC,1,7)=SUBSTR(DESN0,1,2) || SUBSTR(DESN0,4,5); D00000570
22 2 IF SEX='M' THEN SUBSTR(PC,8,1)='1'; ELSE SUBSTR(PC,8,1)='2'; D00000580
25 2 MON=NM0N(SUBSTR(D0B,3,2)); D00000590
26 2 SUBSTR(PC,9,5)=SUBSTR(D0R,1,2) || MON || SUBSTR(D0R,5,2); CC0000600
27 2 SUBSTR(PC,14,6)=SUBSTR(NAME,1,INDEX(NAME,'')-1); D00000610
28 2 D00000620
END; D00000630
/***** D00000640
DCC0UR:PROCEDURE(PC,1); D00000650
DCL RC CHAR(80), MON CHAR(1), I FIXED BINARY;
SUBSTR(RC,21,1)='F'; /* DC21 */D00000660
IF DC(I,24)=' ' THEN SUBSTR(PC,24,1)='1'; /* DC24 */D00000670
IF DC(I,25)=' ' THEN SUBSTR(RC,25,1)='1'; /* DC25 */D00000680
MON=NM0N(DC(I,26)); /* DC26 */D00000690
SUBSTR(RC,26,3)=MON || DC(I,27); /* DC27 */D00000700
MON=NM0N(DC(I,29)); /* DC29 */D00000710
SUBSTR(RC,29,3)=MON || DC(I,30); /* DC30 */D00000720
IF LEN='1' THEN SUBSTR(RC,32,1)=DC(I,32); /* DC32 */D00000730
SUBSTR(RC,34,5)=DC(I,34) || DC(I,35) || DC(I,36) || DC(I,37) /* DC34-38 */D00000750
|| DC(I,38); /* 41-42 */D00000760
SUBSTR(RC,41,2)=DC(I,41) || DC(I,42); /* DC43 */D00000770
IF DC(I,59)=' ' || (DC(I,59)=' ' & SUBSTR(UNOTH(1),1,1)='F') THEN D00000780
DO; SUBSTR(RC,43,1)=DC(I,43); /* DC44 */D00000790
IF DC(I,44)=' ' THEN SUBSTR(RC,44,1)='1'; /* DC45 */D00000800
SUBSTR(RC,45,1)=DC(I,45); /* 46,49 */D00000810
SUBSTR(RC,46,6)=DC46(I) || DC49(I); D00000820
END; D00000830
IF DC(I,59)=' ' & SUBSTR(UNOTH(1),1,1)='B' THEN /* DC59 */D00000840
SUBSTR(RC,59,1)=DC(I,59); /* DC64 */D00000850
SUBSTR(RC,64,1)=DC(I,64); D00000860
END; D00000870
/***** D00000880
QUALC:PROCEDURE(C); D00000890
DCL C(5) CHAR(80), (B11,B61) BIT(1), (CAG,CCQ,CSEQ) PICTURE'99', D00000900
(Q,I,J) FIXED BINARY; D00000910
DCL QUAL2 CHAR(10), QT CHAR(3) DEFINED QUAL2 POS(3), QC CHAR(3) D00000920
DEFINED QUAL2 POS(6), QG CHAR(1) DEFINED QUAL2 POS(9), QP CHAR(1) D00000930
DEFINED QUAL2 POS(10), AQT(20) CHAR(4), OQT(30) CHAR(3); D00000940
CQ0=0; CAQ=0; CSEQ=0; AQT=' '; OQT=' '; D00000950
B61='1'B; D00000960
B11='1'B; D00000970
Q=QUALND; /* CONVERSION */D00000980
DO I=1 TO Q; D00000990
QUAL2=QUAL(I); D0001000
IF QT=' ' A' & QP='P' THEN /* GCE A */D0001010
DO; DO J=1 TO CAQ; D0001020
IF QC=SUBSTR(AQT(J),1,3) THEN D0001030
DO; IF QG>SUBSTR(AQT(J),4,1) THEN AQT(J)=QC || QG; D0001040
GOTO L2; D0001050
END; D0001060
END; D0001070
CAQ=CAQ+1; D0001080
AQT(CAQ)=QC || QG; D0001090
END; ELSE D0001100
IF (QT=' ' O' & QP='P') | /* GCE O */D0001100
```

STMT LEVEL NEST

83	2	1	(QT=' A' & QP='F' & QG='O') THEN	D0001110
85	2	3	DO; DO J=1 TO CQ0;	D0001120
87	2	3	IF QC=QQT(J) THEN GOTC L2;	D0001130
88	2	2	END;	D0001140
90	2	2	CQ0=CQ0+1; QQT(CQ0)=QC;	D0001150
91	2	2	GOTO L1;	D0001160
92	2	1	END; ELSE	D0001170
93	2	1	IF QT='CSE' & QP='P' & QG='1' THEN	D0001180
95	2	3	DO; DO J=I+1 TO Q;	D0001190
96	2	3	IF SUBSTR(QUAL(J),3,3)=' O' & SUBSTR(QUAL(J),10,1)='P'	D0001200
97	2	3	& SUBSTR(QUAL(J),6,3)=SUBSTR(QUAL(I),6,3) THEN GOTO L1;	D0001210
98	2	2	END;	D0001220
99	2	2	CSEQ=CSEQ+1;	D0001230
100	2	2	GOTO L1;	D0001240
101	2	1	END; ELSE	D0001250
102	2	1	IF QT='SCC' & QP='P' & (QC='061' QC='046') THEN	D0001260
104	2	2	DO; SUBSTR(C(3),20,1)='1';	D0001270
105	2	2	GOTO L1;	D0001280
106	2	1	END; ELSE	D0001290
107	2	1	IF QG='S' & QP='P' THEN	D0001300
109	2	2	DO; IF SUBSTR(C(4),32,4)=' ' THEN	D0001310
110	2	2	SUBSTR(C(4),32,4)='O' QC; ELSE	D0001320
111	2	2	IF SUBSTR(C(4),36,4)=' ' THEN	D0001330
112	2	2	SUBSTR(C(4),36,4)='O' QC;	D0001340
113	2	2	C4FLAG='1'R;	D0001350
114	2	1	END;	D0001360
115	2	1	GOTO L2;	D0001370
116	2	1	IF QC='061' & B61 THEN	D0001380
118	2	2	DO; B61='O'B;	D0001390
119	2	2	SUBSTR(C(3),28,1)='1';	D0001400
120	2	2	GOTO L2;	D0001410
121	2	1	END;	D0001420
122	2	1	IF QC='011' & B11 THEN	D0001430
124	2	2	DO; B11='O'B;	D0001440
125	2	2	SUBSTR(C(3),29,1)='1';	D0001450
126	2	2	END;	D0001460
127	2	1	L2: END;	D0001470
128	2	2	SUBSTR(C(3),21,2)=CSEQ;	D0001480
129	2	2	SUBSTR(C(3),23,2)=CQ0;	D0001490
130	2	1	DO I=1 TO CAQ;	D0001500
131	2	2	DO J=1 TO NALC;	D0001510
132	2	2	IF SUBSTR(AQT(I),1,3)=ATAB(J) THEN	D0001520
135	2	3	DO; IF SUBSTR(AQT(I),4,1)='X' THEN SUBSTR(C(3),ATAB(J),1)	D0001530
136	2	3	= 'P'; ELSE SUBSTR(C(3),ATAB(J),1)=SUBSTR(AQT(I),4,1);	D0001540
137	2	3	GOTO L3;	D0001550
138	2	2	END;	D0001560
139	2	1	END; I	D0001570
140	2	1	PUT EDIT(DESNO,'A.LEVEL CODE',SUBSTR(AQT(I),1,3),'NOT FOUND')	D0001580
141	2	2	(SKIP,COL(1),A,3(X(1),A));	D0001590
142	2	2	L3: END;	D0001600
143	1	1	SUBSTR(C(3),25,2)=CAQ;	D0001610
			END;	D0001620
			DESDM:PROCEDURE;	D0001630
				D0001640

STMT	LEVEL	NEST		
144	2		DCL C(5) CHAR(80), CNAME CHAR(18), CFNAME CHAR(31), MON CHAR(1),	DD0001650
145	2		FIRST CHAR(1),(1,ESNAME,PNS) FIXED BINARY;	DD0001660
148	2		C=''; CNAME=''; CFNAME='';	DD0001670
149	2		ESNAME=INDEX(NAME,'');	/* NAME */DD0001680
150	2		CNAME=SUBSTR(NAME,1,ESNAME-1);	DD0001690
151	2		CFNAME=SUBSTR(NAME,FSNAME+2);	/* FNAME */DD0001700
152	2		CALL DKEY(C(5));	DD0001710
153	2	1	DO I=2 TO 4;	DD0001720
154	2	1	SUBSTR(C(1),1,19)=SUBSTR(C(5),1,19);	DD0001730
155	2		END;	DD0001740
156	2		SUBSTR(C(1),1,13)=SUBSTR(C(5),1,13);	DD0001750
158	2		IF DOBC=' ' THEN SUBSTR(C(1),14,1)='1';	DD0001760
159	2		SUBSTR(C(1),15,18)=CNAME;	/* NAME */DD0001770
160	2		SUBSTR(C(1),33,31)=CFNAME;	/* FNAME */DD0001780
161	2		SUBSTR(C(*),74,3)=999;	DD0001790
162	2		SUBSTR(C(*),77,2)=01;	DD0001800
163	2		SUBSTR(C(1),79,2)=01;	/* C.NO1 */DD0001810
164	2		SUBSTR(C(2),22,17)=PNAME;	/* PNAME */DD0001820
165	2		MON=NMON(SUBSTR(TTFT(1,1),3,2));	/* START */DD0001830
166	2		SUBSTR(C(2),42,5)=SUBSTR(TTFT(1,1),1,2) MON	DD0001840
167	2		SUBSTR(TTFT(1,1),5,2);	DD0001850
168	2		SUBSTR(C(2),47,4)='9625';	/* ESTNO */DD0001860
169	2		SUBSTR(C(2),70,1)=AUTHNO;	/* AUTH */DD0001870
170	2		FIRST=SUBSTR(AUTH,1,1);	/* AUTHC */DD0001880
172	2		PNS=INDEX(ALPHA,FIRST);	DD0001890
173	2	1	IF PNS=C THEN GOTO L6;	DD0001900
174	2	1	DO I=AK(2,POS) TO AK(3,POS);	DD0001910
176	2	2	IF AUTH=AUTH(I) THEN	DD0001920
177	2	2	DO; SUBSTR(C(2),39,3)=AUTH1(I);	DD0001930
178	2	1	GOTO L6;	DD0001940
179	2		END;	DD0001950
180	2		END;	DD0001960
181	2		PUT EDIT(DESNO,'AUTHORITY CODE',AUTH,'NCT FOUND')	DD0001970
182	2		(SKIP,COL(1),A,3(X(1),A));	DD0001980
183	2		SUBSTR(C(2),71,1)=OV25;	/* OV25 */DD0001990
184	2		SUBSTR(C(2),79,2)='02';	/* C.NO2 */DD0002000
185	2		CALL QUALC(C);	DD0002010
187	2	1	SUBSTR(C(3),79,2)='03';	/* C.NC3 */DD0002020
188	2	1	IF ADIPC=' ' DDIPC=' ' OQC(1)=' ' OQC(2)=' '	DD0002030
189	2	1	ATD=' ' THEN	DD0002040
190	2	1	DO; CFLAG='1'B;	DD0002050
191	2	1	SUBSTR(C(4),22,1)=ADIPC;	/* ADIPC */DD0002060
192	2	1	SUBSTR(C(4),23,1)=DDIPC;	/* DDIPC */DD0002070
193	2		SUBSTR(C(4),24,4)=OQC(1);	/* OADV1 */DD0002080
194	2		SUBSTR(C(4),28,4)=OQC(2);	/* OACV2 */DD0002090
195	2		SUBSTR(C(4),44,1)=ATD;	/* ATD */DD0002100
196	2		END;	DD0002110
197	2		SUBSTR(C(4),79,2)='04';	/* C.NO4 */DD0002120
198	2		I=1;	DD0002130
199	2		CALL DCDUR(C(5),1);	DD0002140
200	2		SUBSTR(C(5),79,2)='05';	/* C.NO5 */DD0002150
			IF CFLAG THEN PUT FILE(SPUNCH) EDIT(C(*))(5(A(80))); ELSE	DD0002160
			PUT FILE(SPUNCH) EDIT(C(1),C(2),C(3),C(5))(4(A(80)));	DD0002170
			END;	DD0002180

STMT LEVEL NEST

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201 1 1 *****/D0002190
202 2 1 DESWCL:PROCEDURE;
203 2 2 DCL C CHAR(80), MON CHAR(1), I FIXED BINARY;
204 2 2 C='';
205 2 2 CALL DKEY(C);
207 2 2 IF TRANS='99' THEN GOTO L1;
208 2 2 MON=NMON(SUBSTR(TTFT(1,2),3,2));
209 2 2 SUBSTR(C,20,5)=SUBSTR(TTFT(1,2),1,2) || MON || SUBSTR(TTFT(1,2),
210 2 2 5,2);
211 2 2 SUBSTR(C,25,4)='9625';
212 2 2 SUBSTR(C,29,1)=SUBSTR(TTFT(2,1),6,1);
213 2 2 MON=NMON(SUBSTR(TTFT(1,2),3,2));
214 2 2 SUBSTR(C,30,3)=MON || SUBSTR(TTFT(1,2),5,2);
216 2 2 GOTO L2;
218 2 2 L1: IF TC=' ' THEN SUBSTR(C,40,1)=TC; ELSE
220 2 2 IF WS=' ' THEN SUBSTR(C,40,1)=WS; ELSE
221 2 2 IF RE=' ' THEN SUBSTR(C,40,1)=RE;
222 2 2 SUBSTR(C,41,1)='1';
223 2 2 SUBSTR(C,42,1)=SUBCAR;
224 2 2 MON=NMON(SUBSTR(TTFT(1,2),3,2));
225 2 2 SUBSTR(C,43,5)=SUBSTR(TTFT(1,2),1,2) || MON || SUBSTR(TTFT(1,2),
226 2 2 5,2);
227 2 2 SUBSTR(C,48,4)='9625';
228 2 2 L2: SUBSTR(C,77,2)='12';
229 2 2 SUBSTR(C,74,3)='999';
230 2 2 PUT FILE(SPUNCH) EDIT(C)(A(80));
231 2 2 END;
232 2 2 *****/D0002460
233 2 2 DESCOCH:PROCEDURE;
234 2 2 DCL C(2) CHAR(80), MON CHAR(1), I FIXED BINARY;
235 2 2 C='';
236 2 2 CALL DKEY(C(1));
237 2 2 SUBSTR(C(2),1,19)=SUBSTR(C(1),1,19);
238 2 2 SUBSTR(C(*),74,3)='999';
239 2 2 SUBSTR(C(*),77,2)=TRANS;
240 2 2 SUBSTR(C(1),47,4)='9625';
241 2 2 SUBSTR(C(1),79,2)='02';
242 2 2 SUBSTR(C(2),79,2)='05';
243 2 2 IF TRANS='15' THEN I=1; ELSE I=LE;
244 2 2 CALL DCOUR(C(2),1);
245 2 2 IF TRANS='15' THEN
246 2 2 DO; MON=NMON(SUBSTR(TTFT(1,1),3,2));
247 2 2 SUBSTR(C(1),42,5)=SUBSTR(TTFT(1,1),1,2) || MON ||
248 2 2 SUBSTR(TTFT(1,1),5,2);
249 2 2 END;
250 2 2 PUT FILE(SPUNCH) EDIT(C*)(2(A(80)));
251 2 2 END;
252 2 2 *****/D0002660
253 2 2 ON ENDFILE(DIC) GOTO L49;
254 2 2 GET EDIT(FILN1,FILN2,YE)(COL(1),A(8),X(1),A(8),X(1),A(4));
255 2 2 GET DATA;
256 2 2 IF DES=' ' THEN
257 2 2 DO; PUT EDIT('TRANSACTION FILE NOT SPECIFIED...EXECUTION',
258 2 2 'TERMINATED')(PAGE,COL(1),A,A);
259 2 2 D0002720
```

STMT LEVEL NEST

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258 1 1
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      GOTO L49;
END;
PUT EDIT('BCRS....BEDE COLLEGE RECORD SYSTEM','PROGRAMME C',
'YEAR REQUESTED',YEI(PAGE,COL(1),A,SKIP(2),COL(1),A,COL(1),A,
COL(30),A);
PUT SKIP(2);
B='0'B;
OPEN FILE(STUDENT) INPUT TITLE(FILN1);
OPEN FILE(DIC) INPUT TITLE(DES);
CALL CON(FILN2);
/*-----*/
ON ENDFILE(STUDENT)
BEGIN; CLOSE FILE(STUDENT);
OPEN FILE(STUDENT) INPUT TITLE(FILN1);
GOTO L41;
END;
L42: GET FILE(DIC) EDIT(DESNO2,TRANS)(COL(1),A(8),A(2));
IF TRANS='01' & TRANS='11' & TRANS='12' & TRANS='15' &
TRANS='99' THEN
DO; PUT EDIT(DESNO2,'TRANSACTION IN ERROR....TRANSACTION IGNORED')
(COL(1),A,X(1),A);
GOTO L42;
END;
L41: READ FILE(STUDENT) SET(PTR);
IF DESNO=DESNO2 THEN
DO; IF B THEN B='0'B;
CFLAG='0'B;
PUT EDIT(DESNO2,'TRANSACTION',TRANS)(COL(1),A,2(X(1),A));
IF TRANS='01' THEN CALL DESADM; ELSE
IF TRANS='11' | TRANS='15' THEN CALL DESCOCH; ELSE
IF TRANS='12' | TRANS='99' THEN CALL DESWOL;
PUT EDIT('COMPLETED')(X(1),A);
GOTO L42;
END; ELSE
DO; IF ~B THEN
DO; DESNO3=DESNO;
B='1'B;
END; ELSE
DO; IF DESNO=DESNO3 THEN
DO; PUT EDIT(DESNO2,'CANNOT BE FOUND....DATA IGNORED')
(COL(1),A,X(1),A);
B='0'B;
GOTO L42;
END;
END;
GOTO L41;
END;
/*-----*/
L49: PUT PAGE;
CLOSE FILE(STUDENT);
CLOSE FILE(DIC);
END;
D0002730
D0002740
D0002750
D0002760
D0002770
D0002780
D0002790
D0002800
D0002810
D0002820
D0002830
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D0003080
D0003090
D0003100
D0003110
D0003120
D0003130
D0003140
D0003150
D0003160
D0003170
D0003180
D0003190
D0003200
D0003210
D0003220
D0003230
D0003240
D0003250
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ATTRIBUTE AND CROSS-REFERENCE TABLE

DCL NO. IDENTIFIER

ATTRIBUTES AND REFERENCES

2	ADIP	IN EDUCATION IN RECORD,BASED(PTR),UNALIGNED,STRING(3C),CHARACTER
2	ADIPC	IN EDUCATION IN RECORD,BASED(PTR),UNALIGNED,STRING(1),CHARACTER 184,187
2	***** AH4	(2,3)IN INTEL IN RECORD,BASED(PTR),ALIGNED,BINARY,FIXED(15,0)
3	***** AK	(3,26)STATIC,EXTERNAL,ALIGNED,BINARY,FIXEC(15,0) 172,172
3	ALPHA	STATIC,EXTERNAL,UNALIGNED,STRING(26),CHARACTER 169
9	AMON	PARAMETER,UNALIGNED,STRING(2),CHARACTER 8,10,12,14,16
2	ANNPRCG	IN RECORD,BASED(PTR),STRUCTURE
2	AP	IN ANNPRG IN RECORD,BASED(PTR),UNALIGNED,STRING(802),CHARACTER
58	AQT	(20)AUTOMATIC,UNALIGNED,STRING(4),CHARACTER 62,72,74,75,80,131,133,135,139
3	ATAB	(*)EXTERNAL,CONTROLLED,UNALIGNED,STRING(*),CHARACTER 131
3	***** ATAB1	(*)EXTERNAL,CONTROLLED,ALIGNED,BINARY,FIXED(15,0) 134,135
2	ATO	IN EDUCATION IN RECORD,BASED(PTR),UNALIGNED,STRING(1),CHARACTER 184,191
2	AUTH	IN GENERAL IN RECORD,BASED(PTR),UNALIGNED,STRING(19),CHARACTER 168,173,179
2	AUTHNO	IN GENERAL IN RECORD,BASED(PTR),UNALIGNED,STRING(1),CHARACTER 167
3	AUTR	(*)EXTERNAL,CONTROLLED,UNALIGNED,STRING(*),CHARACTER 173
3	AUTR1	(*)EXTERNAL,CONTROLLED,UNALIGNED,STRING(*),CHARACTER 175
4	B	AUTOMATIC,UNALIGNED,STRING(1),BIT 261,280,281,294,297,303
57	B11	AUTOMATIC,UNALIGNED,STRING(1),BIT 65,121,123
57	B61	AUTOMATIC,UNALIGNED,STRING(1),BIT

DCL NO.	IDENTIFIER	ATTRIBUTES AND REFERENCES
2	BE	64,115,117 IN FINALS IN RECCOPD,BASED(PTR),UNALIGNED,STRING(1),CHARACTER 218,219
230	C	(2)AUTOMATIC,UNALIGNED,STRING(80),CHARACTER 231,232,233,234,235,236,237,238,242,246,248
202	C	AUTOMATIC,UNALIGNED,STRING(80),CHARACTER 203,204,208,209,210,212,215,217,219,220,221,223,224,225,226,227
144	C	(5)AUTOMATIC,UNALIGNED,STRING(80),CHARACTER 145,151,153,153,155,157,158,159,160,161,162,163,165,166,167,175 180,181,182,183,187,188,189,190,191,193,195,196,198,199,199,199
57	C	(5)PARAMETER,UNALIGNED,STRING(80),CHARACTER 56,103,108,109,110,111,118,124,127,128,134,135,141
4	C4FLAG	AUTOMATIC,UNALIGNED,STRING(1),BIT 112,186,197,282
57	CAQ	AUTOMATIC,UNALIGNED,DECIMAL,PICTURE(99) 60,71,79,79,80,129,141
144	CFNAME	AUTOMATIC,UNALIGNED,STRING(31),CHARACTER 147,150,159
144	CNAME	AUTOMATIC,UNALIGNED,STRING(18),CHARACTER 146,149,158
2	CODES	(4)IN COURSE IN RECORD,BASED(PTR),UNALIGNED,STRING(3),CHARACTER EXTERNAL,ENTRY,DECIMAL,FLOAT(SINGLE) 264
5	CON	IN GENERAL IN RECORD,BASED(PTR),UNALIGNED,STRING(1),CHARACTER
2	CQNF	AUTOMATIC,UNALIGNED,DECIMAL,PICTURE(99) 59,84,88,88,89,128
57	CQQ	IN RECORD,BASEC(PTR),STRUCTURE
2	COURSE	AUTOMATIC,UNALIGNED,DECIMAL,PICTURE(99) 61,98,98,127
57	CSEQ	ENTRY,DECIMAL,FLOAT(SINGLE)
1	D	(2)IN EDUCATION IN RECORD,BASED(PTR),UNALIGNED,STRING(6),CHARACTER
2	DATT	(4,24:64)IN COURSE IN RECORD,BASED(PTR),UNALIGNED,STRING(1), CHARACTER
2	DC	32,34,41,42,42,42,42,43,43,44,44,46,47,49,52,53,54
2	DC1	(4,26:30)IN CCOURSE IN RECORD,BASED(PTR),UNALIGNED,STRING(2),

DCL NO.	IDENTIFIER	ATTRIBUTES AND REFERENCES
2	DC46	CHARACTER 35,37,38,39 (4) IN COURSE IN RECORD,BASED(PTR),UNALIGNED,STRING(3),CHARACTER 50
2	DC49	(4) IN COURSE IN RECORD,BASEC(PTR),UNALIGNED,STRING(3),CHARACTER 50
29	DCOUR	ENTRY,DECIMAL,FLCAT(SINGLE) 195,242
2	DDIPC	IN EDUCATICN IN RECORD,BASED(PTR),UNALIGNED,STRING(1),CHARACTER 184,188
2	DEG	(2) IN EDUCATICN IN RECORD,BASED(PTR),UNALIGNED,STRING(3),CHARACTER
4	DES	AUTOMATIC,UNALIGNED,STRING(8),CHARACTER 254,263
143	DESADM	ENTRY,DECIMAL,FLOAT(SINGLE) 285
229	DESCOCH	ENTRY,DECIMAL,FLOAT(SINGLE) 287
2	DESND	IN RECORD,BASED(PTR),UNALIGNED,STRING(8),CHARACTER 21,21,139,179,278,296,300
4	DESN02	AUTOMATIC,UNALIGNED,STRING(8),CHARACTER 271,274,278,283,302
4	DESN03	AUTOMATIC,UNALIGNED,STRING(8),CHARACTER 296,300
201	DESWOL	ENTRY,DECIMAL,FLOAT(SINGLE) 289
7	DIC	FILE,EXTERNAL 250,263,271,311
19	DKEY	ENTRY,DECIMAL,FLOAT(SINGLE) 151,204,232
2	DOB	IN GENERAL IN RECORD,BASED(PTR),UNALIGNED,STRING(6),CHARACTER 25,26,26
2	DOBC	IN GENERAL IN RECORD,BASED(PTR),UNALIGNED,STRING(1),CHARACTER 156
2	***** DSCALE	(2) IN INTEL IN RECORD,BASED(PTR),ALIGNED,BINARY,FIXED(15,0)
2	EDUCATION	IN RECORD,BASED(PTR),STRUCTURE

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DCL NO.	IDENTIFIER	ATTRIBUTES AND REFERENCES
144	***** ESNAMF	AUTOMATIC, ALIGNED, BINARY, FIXED(15,0) 148,149,150
4	FILN1	AUTOMATIC, UNALIGNED, STRING(8), CHARACTER 252,262,268
4	FILN2	AUTOMATIC, UNALIGNED, STRING(8), CHARACTER 252,264
2	FINALS	IN RECORD, BASED(PTR), STRUCTURE
144	FIRST	AUTOMATIC, UNALIGNED, STRING(1), CHARACTER 168,169
2	***** FK	(100,2) IN ANNPROG IN RECORD, BASED(PTR), ALIGNED, BINARY, FIXED (15,0)
2	FPOS	IN GENERAL IN RECORD, BASED(PTR), UNALIGNED, STRING(4), CHARACTER
2	FPT	(2) IN EDUCATION IN RECORD, BASED(PTR), UNALIGNED, STRING(1), CHARACTER
2	FT	(2,2) IN EDUCATION IN RECORD, BASED(PTR), UNALIGNED, STRING(6), CHARACTER
2	GENERAL	IN RECORD, BASED(PTR), STRUCTURE
2	HPCD	(2) IN EDUCATION IN RECORD, BASED(PTR), UNALIGNED, STRING(4), CHARACTER
230	***** I	AUTOMATIC, ALIGNED, BINARY, FIXED(15,0) 240,241,242
202	***** I	AUTOMATIC, ALIGNED, BINARY, FIXED(15,0)
144	***** I	AUTOMATIC, ALIGNED, BINARY, FIXED(15,0) 152,153,172,173,175,194,195
57	***** I	AUTOMATIC, ALIGNED, BINARY, FIXED(15,0) 67,68,94,95,129,131,133,135,139
30	***** I	PARAMETER, ALIGNED, BINARY, FIXED(15,0) 29,32,34,36,37,38,39,41,42,42,42,42,43,43,44,44,46,47,49,50,50,52 53,54
	INDEX	GENERIC, BUILT-IN FUNCTION 27,148,169
2	INTEL	IN RECORD, BASED(PTR), STRUCTURE
2	INTELB	IN INTEL IN RECORD, BASED(PTR), UNALIGNED, STRING(2), CHARACTER
57	***** J	AUTOMATIC, ALIGNED, BINARY, FIXED(15,0) 71,72,74,75,84,85,94,95,95,95,130,131,134,135
115	L1	STATEMENT LABEL CONSTANT 90,96,99,104

DCL NO.	IDENTIFIER	ATTRIBUTES AND REFERENCES
214	L1	STATEMENT LABEL CONSTANT 206
126	L2	STATEMENT LABEL CONSTANT 76,86,114,119
225	L2	STATEMENT LABEL CCNSTANT 213
140	L3	STATEMENT LABEL CONSTANT 136
277	L41	STATEMENT LABEL CONSTANT 269,307
271	L42	STATEMENT LABEL CONSTANT 275,291,304
309	L49	STATEMENT LABEL CONSTANT 251,257
180	L6	STATEMENT LABEL CONSTANT 171,176
2	LE	IN COURSE IN RECORD,BASED(PTR),UNALIGNED,STRING(1),CHARACTER 241
2	***** LEAP	IN ANNPROG IN RECORD,BASED(PTR),ALIGNED,BINARY,FIXED(15,0)
2	LEN	IN CCURSE IN RECORD,BASED(PTR),UNALIGNED,STRING(1),CHARACTER 40
2	MART	IN GENERAL IN RECORD,BASED(PTR),UNALIGNED,STRING(1),CHARACTER
230	MON	AUTOMATIC,UNALIGNED,STRING(1),CHARACTER 245,246
202	MON	AUTOMATIC,UNALIGNED,STRING(1),CHARACTER 207,208,211,212,222,223
144	MON	AUTOMATIC,UNALIGNED,STRING(1),CHARACTER 164,165
30	MON	AUTOMATIC,UNALIGNED,STRING(1),CHARACTER 36,37,38,39
20	MON	AUTOMATIC,UNALIGNED,STRING(1),CHARACTER 25,26
3	***** NALC	STATIC,EXTERNAL,ALIGNED,BINARY,FIXED(15,0) 130
2	NAME	IN RECORD,BASED(PTR),UNALIGNED,STRING(40),CHARACTER

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DCL NO. IDENTIFIER

ATTRIBUTES AND REFERENCES

8 NMUN

27,27,148,145,150

ENTRY,STRING(1),CHARACTER
25,36,38,164,207,211,222,245

2 NO

(2) IN EDUCATION IN RECORD,BASED(PTR),UNALIGNED,STRING(30),CHARACTER

2 NQC

(2) IN EDUCATION IN RECORD,BASED(PTR),UNALIGNED,STRING(4),CHARACTER
184,184,189,190

58 NQT

(30) AUTOMATIC,UNALIGNED,STRING(3),CHARACTER
63,85,89

2 OV25

IN GENERAL IN RECORD,BASED(PTR),UNALIGNED,STRING(1),CHARACTER
180

2 ***** PF16

(2,16) IN INTEL IN RECORD,BASED(PTR),ALIGNED,BINARY,FIXED(15,0)

2 PNAME

IN GENERAL IN RECORD,BASED(PTR),UNALIGNED,STRING(17),CHARACTER
163

2 POCC

IN GENERAL IN RECORD,BASED(PTR),UNALIGNED,STRING(1),CHARACTER

144 ***** POS

AUTOMATIC,ALIGNED,BINARY,FIXED(15,0)
169,170,172,172

PTR

AUTOMATIC,ALIGNED,PCINTER

21,21,22,25,26,26,27,27,32,34,36,37,38,39,40,41,42,42,42,42,43,43
44,44,44,46,47,49,50,50,52,52,53,54,66,68,95,95,95,95,139,148,149
150,156,163,164,165,167,168,173,179,179,180,184,184,184,184
187,188,189,190,191,207,208,208,210,211,212,214,215,216,217,218,219
221,222,223,223,241,245,246,277,278,296,300

57 ***** Q

AUTOMATIC,ALIGNED,BINARY,FIXED(15,0)
66,67,94

58 QC

AUTOMATIC,DEFINED,UNALIGNED,STRING(3),CHARACTER
72,75,80,85,89,101,101,109,111,115,121

58 QG

AUTOMATIC,DEFINED,UNALIGNED,STRING(1),CHARACTER
74,75,80,82,92,106

58 QP

AUTOMATIC,DEFINED,UNALIGNED,STRING(1),CHARACTER
69,82,82,92,101,106

58 QT

AUTOMATIC,DEFINED,UNALIGNED,STRING(3),CHARACTER
69,82,82,92,101

2 QUAL

(30) IN EDUCATION IN RECORD,BASED(PTR),UNALIGNED,STRING(10),CHARACTER
68,95,95,95,95

58 QUAL2

AUTOMATIC,UNALIGNED,STRING(10),CHARACTER
68

DCL NO.	IDENTIFIER	ATTRIBUTES AND PREFERENCES
56	QUALC	ENTRY,DECIMAL,FLOAT(SINGLE) 182
2	QUALNO	IN EDUCATION IN RECORD,BASED(PTR),UNALIGNED,STRING(2),CHARACTER 66
30	RC	PARAMETER,UNALIGNED,STRING(80),CHARACTER 29,31,33,35,37,39,41,42,43,46,48,49,50,53,54
20	RC	PARAMETER,UNALIGNED,STRING(80),CHARACTER 19,21,23,24,26,27
2	RECORD	BASED(PTR),STRUCTURE
2	REG	IN GENERAL IN RECORD,BASED(PTR),UNALIGNED,STRING(1),CHARACTER
2	REL	IN GENERAL IN RECORD,BASED(PTP),UNALIGNED,STRING(1),CHARACTER
	SCARDS	FILE,EXTERNAL 252,253
2	SCH	(1C)IN EDUCATION IN RECORD,BASED(PTR),UNALIGNED,STRING(5),CHARACTER
2	SCHNO	IN EDUCATION IN RECORD,BASED(PTR),UNALIGNED,STRING(2),CHARACTER
2	SET	IN GENERAL IN RECORD,BASED(PTR),UNALIGNED,STRING(1),CHARACTER
2	SEX	IN GENERAL IN RECORD,BASED(PTR),UNALIGNED,STRING(1),CHARACTER 22
2	SQCC	IN GENERAL IN RECORD,BASED(PTR),UNALIGNED,STRING(1),CHARACTER
	SPRINT	FILE,EXTERNAL 139,179,256,259,260,274,283,290,302,309
	SPUNCH	FILE,EXTERNAL 198,199,227,248
2	STEN	(2,16)IN INTEL IN RECORD,BASED(PTR),ALIGNED,BINARY,FIXED(15,0)
6	STUDENT	FILE,EXTERNAL,RECORD,ENVIRONMENT(F(2416)) 262,265,267,268,277,310
2	SUB	(2)IN EDUCATION IN RECORD,BASED(PTR),UNALIGNED,STRING(36),CHARACTER
2	SUBCAR	IN FINALS IN RECORD,BASED(PTR),UNALIGNED,STRING(1),CHARACTER 221
	SUBSTR	GENERIC,BUILT-IN FUNCTION 16,21,21,21,23,24,25,26,26,26,27,27,31,33,35,37,39,41,42,43,44,46,48 49,50,52,53,54,72,74,95,95,95,103,108,109,110,111,118,124,127,128 131,133,134,135,135,139,141,149,150,153,155,155,157,158,159,160 161,162,163,164,165,165,166,167,168,175,180,181,183,187,188,189 190,191,193,196,207,208,208,209,210,210,211,212,212,215,217,219

DCL NO.	IDENTIFIER	ATTRIBUTES AND REFERENCES
		220,221,222,223,223,224,225,226,233,233,234,235,236,237,238,245 246,246,246
2	TC	IN FINALS IN RECORD,BASED(PTR),UNALIGNED,STRING(1),CHARACTER 214,215
2	TITLE	IN GENERAL IN RECORD,BASED(PTR),UNALIGNED,STRING(2),CHARACTER
4	TRANS	AUTOMATIC,UNALIGNED,STRING(2),CHARACTER 205,235,239,243,271,272,272,272,272,283,284,286,286,288,288
2	TTFT	(2,2)IN GENERAL IN RECORD,BASEC(PTR),UNALIGNED,STRING(6),CHARACTER 164,165,165,207,208,208,210,211,212,222,223,223,245,246,246
2	UNCOL	(2)IN EDUCATION IN RECORD,BASED(PTR),UNALIGNED,STRING(21),CHARACTER
2	UNOTH	(2)IN EDUCATION IN RECORD,BASED(PTR),UNALIGNED,STRING(21),CHARACTER 44,52
2	***** VALUES	(2,6)IN INTEL IN RECORD,BASED(PTR),ALIGNED,BINARY,FIXED(15,0)
2	WS	IN FINALS IN RECORD,BASED(PTR),UNALIGNED,STRING(1),CHARACTER 216,217
2	YC	IN GENERAL IN RECCRD,BASED(PTR),UNALIGNED,STRING(2),CHARACTER
4	YE	AUTCMATIC,UNALIGNED,STRING(4),CHARACTER 252,259

AGGREGATE LENGTH TABLE

STATEMENT NO.	IDENTIFIER	LENGTH IN BYTES
3	AK	156
58	AQT	80
144	C	400
230	C	160
58	DQT	90
2	RECORD	2416

STORAGE REQUIREMENTS.

THE STORAGE AREA FOR THE PROCEDURE LABELLED D IS 1128 BYTES LONG.
THE STORAGE AREA FOR THE PROCEDURE LABELLED NMUN IS 928 BYTES LONG.
THE STORAGE AREA FOR THE PROCEDURE LABELLED DKEY IS 1040 BYTES LONG.
THE STORAGE AREA FOR THE PROCEDURE LABELLED DCOUR IS 1024 BYTES LONG.
THE STORAGE AREA FOR THE PROCEDURE LABELLED QUALC IS 1384 BYTES LONG.
THE STORAGE AREA FOR THE PROCEDURE LABELLED DESADM IS 1604 BYTES LONG.
THE STORAGE AREA FOR THE PROCEDURE LABELLED DESWOL IS 1140 BYTES LONG.
THE STORAGE AREA FOR THE PROCEDURE LABELLED DESCOCN IS 1224 BYTES LONG.
THE STORAGE AREA FOR THE CN UNIT AT STATEMENT NO. 250 IS 896 BYTES LONG.
THE STORAGE AREA FOR THE CN UNIT AT STATEMENT NO. 266 IS 928 BYTES LONG.
THE PROGRAM CSECT IS NAMED D AND IS 27588 BYTES LONG.
THE STATIC CSECT IS NAMED *****DA AND IS 4383 BYTES LONG.

STATISTICS SOURCE RECORDS = 325, PROG TEXT STMTS = 312, OBJECT BYTES = 27588

COMPILER DIAGNOSTICS.

WARNINGS.

IFM0227I NO FILE/STRING OPTION SPECIFIED IN ONE OR MORE GET/PUT STATEMENTS. SYSIN/SYSPRINT HAS BEEN ASSUMED IN EACH CASE.

IFM0764I ONE OR MORE FIXED BINARY ITEMS OF PRECISION 15 OR LESS HAVE BEEN GIVEN HALFWORD STORAGE. THEY ARE FLAGGED ***** IN THE XREF/ATR LIST.

IFM1790I DATA CONVERSIONS WILL BE DONE BY SUBROUTINE CALL IN THE FOLLOWING STATEMENTS 66, 127, 128, 141, 241.

END OF DIAGNOSTICS.

COMPILE TIME 35.80 SECS

ELAPSED TIME 112.82 SECS

THE COMPLETE LIST OF OPTIONS USED DURING THIS COMPILATION IS--

- EBCCIC
- CHAR60
- NCMACRO
- SOURCE2
- NOMACDCK
- COMP
- SOURCE
- ATR
- XREF
- NCFXTRF
- NOLIST
- NLOAD
- DECK
- FLAGW
- STMT
- SIZE=010P
- LINECNT=060
- OPT=01
- SORMGIN=(001,072)
- NEST
- CPLIST

OPTIONS IN EFFECT EBCCIC,CHAR60,NOMACRO,SOURCE2,NOMACDCK,COMP,SOURCE,ATR,XREF,NOEXTREF,NOLIST,NLOAD,
OPTIONS IN EFFECT DECK,FLAGW,STMT,SIZE=010P,LINECNT=060,GPT=01,SORMGIN=(001,072),
OPTIONS IN EFFECT NEST,OPLIST

STMT LEVEL NEST

STMT	LEVEL	NEST
1		
2	1	
3	1	
4		
5	1	
6	1	
7	1	
8	1	
9	1	
10	1	1
11	1	1
12	1	
14	1	
15	1	1
16	1	1
17	1	1
18	1	
19	1	
20	1	
21	1	1
22	1	2
23	1	2
24	1	1
25	1	
26	1	
27	1	
28	1	
29	1	
30	1	
31	1	
32	1	
33	1	
34	1	
35	1	
36	1	
37	1	
38	1	
39	1	
40	1	
41	1	
42	1	1
43	1	2
44	1	2
45	1	2
46	1	1

```
CCN:PROC(FILN2);
DCL FILN2 CHAR(8);
DCL (I,J,K) FIXED BINARY, AK(3,26) FIXED BINARY EXTERNAL,
(AUTR(*) CHAR(19), AUTR1(*) CHAR(3), ATAB(*) CHAR(3), ATAB1(*)
FIXED BINARY) CONTROLLED EXTERNAL, (ALPHA CHAR(26), NALC FIXED
BINARY) EXTERNAL;
DCL (SCK(9) CHAR(60), PSOK(5) CHAR(65), STK(6) CHAR(50),
MK(3) CHAR(12), OK(10) CHAR(35), RK(5) CHAR(30), GRC CHAR(11),
GRK(11) CHAR(30), OAK(4) CHAR(40), ORK(6) CHAR(30), OPSOK(6)
CHAR(40)) VARYING EXTERNAL;
DCL NORM(2,16,10) FIXED BINARY EXTERNAL;
DCL NORM2(2,16,2) FLOAT DECIMAL EXTERNAL;

/*-----*/
DCL CONST FILE;
/*-----*/
/*-----*/
OPEN FILE(CONST) INPUT TITLE(FILN2);
DO I=1 TO 26;
  GET FILE(CONST) LIST(AK(1,I));
END;
  AK(2,I)=1;      AK(3,I)=AK(2,I)+AK(1,I)-1;
  DO I=2 TO 26;
    AK(2,I)=AK(3,I-1)+1;
    AK(3,I)=AK(1,I)+AK(2,I)-1;
  END;
  N=SUM(AK(1,*));
  ALLOCATE AUTR(N),AUTR1(N);
  DO K=1 TO 26;
    DO I=AK(2,K) TO AK(3,K);
      GET FILE(CONST) EDIT(AUTR(I),AUTR1(I))
        (COL(1),A(19),COL(40),A(3));
    END;
  END;
  GET FILE(CONST) EDIT((OAK(K) DO K=1 TO 4))(4(COL(1),A(40)));
  GET FILE(CONST) EDIT((OR(K) DO K=1 TO 6))(6(COL(1),A(30)));
  GET FILE(CONST) EDIT((OPSOK(K) DO K=1 TO 6))(6(COL(1),A(40)));
  GET FILE(CONST) EDIT((SCK(I) DO I=1 TO 9))(9(COL(1),A(60)));
  GET FILE(CONST) EDIT((PSOK(I) DO I=1 TO 5))(5(COL(1),A(65)));
  GET FILE(CONST) EDIT((STK(I) DO I=1 TO 6))(6(COL(1),A(50)));
  GET FILE(CONST) EDIT((MK(I) DO I=1 TO 3))(3(COL(1),A(12)));
  GET FILE(CONST) EDIT((OK(I) DO I=1 TO 10))(10(COL(1),A(35)));
  GET FILE(CONST) EDIT((RK(I) DO I=1 TO 5))(5(COL(1),A(30)));
  GET FILE(CONST) EDIT((GRK(I) DO I=1 TO 11))(11(COL(1),A(30)));
  GET FILE(CONST) EDIT(ALPHA)(COL(1),A(26));
  GRC=SUBSTR(ALPHA,1,11);
  GET FILE(CONST) EDIT(NALC)(COL(1),F(3));
  ALLOCATE ATAB(NALC),ATAB1(NALC);
  GET FILE(CONST) SKIP;
  GET FILE(CONST) EDIT((ATAB(I),ATAB1(I) DO I=1 TO NALC))
    (X(2),A(3),X(1),F(2));
  DO I=1 TO 2;
    DO J=1 TO 16;
      GET FILE(CONST) LIST((NORM(I,J,K) DO K=1 TO 10));
      GET FILE(CONST) LIST((NORM2(I,J,K) DO K=1 TO 2));
    END;
  END;
END;
```

STMT LEVEL NEST

47 1 CLOSE FILE(CONST);
48 1 END;

00003830
00003840

ATTRIBUTE AND CROSS-REFERENCE TABLE

DCL NO. IDENTIFIER

ATTRIBUTES AND REFERENCES

DCL NO.	IDENTIFIER	ATTRIBUTES AND REFERENCES
3	***** AK	(3,26)STATIC,EXTERNAL,ALIGNED,BINARY,FIXED(15,0) 10,12,13,13,13,15,15,16,16,16,18,21,21
3	ALPHA	STATIC,EXTERNAL,UNALIGNED,STRING(26),CHARACTER 35,36
3	ATAB	(*)EXTERNAL,CONTROLLED,UNALIGNED,STRING(*),CHARACTER 38,40
3	***** ATAB1	(*)EXTERNAL,CONTROLLED,ALIGNED,BINARY,FIXED(15,0) 38,40
3	AUTR	(*)EXTERNAL,CONTROLLED,UNALIGNED,STRING(*),CHARACTER 19,22
3	AUTR1	(*)EXTERNAL,CONTROLLED,UNALIGNED,STRING(*),CHARACTER 19,22
1	CON	ENTRY,DECIMAL,FLCAT(SINGLE)
7	CONST	FILE,EXTERNAL 8,10,22,25,26,27,28,29,30,31,32,33,34,35,37,39,40,43,44,47
2	FILN2	PARAMETER,UNALIGNED,STRING(8),CHARACTER 1,8
4	GRC	STATIC,EXTERNAL,UNALIGNED,STRING(11),CHARACTER,VARYING 36
4	GRK	(11)STATIC,EXTERNAL,UNALIGNED,STRING(30),CHARACTER,VARYING 34
3	***** I	AUTOMATIC,ALIGNED,BINARY,FIXED(15,0) 9,10,14,15,15,16,16,21,22,22,28,28,29,29,30,30,31,31,32,32,33,33 34,34,40,40,41,43,44
3	***** J	AUTOMATIC,ALIGNED,BINARY,FIXED(15,0) 42,43,44
3	***** K	AUTOMATIC,ALIGNED,BINARY,FIXED(15,0) 20,21,21,25,25,26,26,27,27,43,43,44,44
4	MK	(3)STATIC,EXTERNAL,UNALIGNED,STRING(12),CHARACTER,VARYING 31
	***** N	AUTOMATIC,ALIGNED,BINARY,FIXED(15,0) 18,19,19
3	***** NALC	STATIC,EXTERNAL,ALIGNED,BINARY,FIXED(15,0) 37,38,38,40

DCL NO.	IDENTIFIER	ATTRIBUTES AND REFERENCES
5	***** NORM	(2,16,10)STATIC,EXTERNAL,ALIGNED,BINARY,FIXED(15,C) 43
6	NORM2	(2,16,2)STATIC,EXTERNAL,ALIGNED,DECIMAL,FLOAT(SINGLE) 44
4	OAK	(4)STATIC,EXTERNAL,UNALIGNED,STRING(40),CHARACTER,VARYING 25
4	OK	(10)STATIC,EXTERNAL,UNALIGNED,STRING(35),CHARACTER,VARYING 32
4	OPSGK	(6)STATIC,EXTERNAL,UNALIGNED,STRING(40),CHARACTER,VARYING 27
4	ORK	(6)STATIC,EXTERNAL,UNALIGNED,STRING(30),CHARACTER,VARYING 26
4	PSOK	(5)STATIC,EXTERNAL,UNALIGNED,STRING(65),CHARACTER,VARYING 29
4	RK	(5)STATIC,EXTERNAL,UNALIGNED,STRING(30),CHARACTER,VARYING 33
4	SCK	(9)STATIC,EXTERNAL,UNALIGNED,STRING(60),CHARACTER,VARYING 28
4	STK	(6)STATIC,EXTERNAL,UNALIGNED,STRING(50),CHARACTER,VARYING 30
	SUBSTP	GENERIC,BUILT-IN FUNCTION 36
	SUM	GENERIC,BUILT-IN FUNCTION 18

AGGREGATE LENGTH TABLE

STATEMENT NO.	IDENTIFIER	LENGTH IN BYTES
3	AK	156
38	ATAB	ADJUSTABLE
38	ATAB1	ADJUSTABLE
19	AUTR	ADJUSTABLE
19	AUTR1	ADJUSTABLE
4	GRK	330
4	MK	36
5	NORM	640
6	NORM2	256
4	OAK	160
4	OK	350
4	OPSOK	240
4	ORK	180
4	PSOK	325
4	RK	150
4	SCK	540
4	STK	300

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STORAGE REQUIREMENTS.

THE STORAGE AREA (IN STATIC) FOR THE PROCEDURE LABELLED CCN IS 388 BYTES LONG.

THE PROGRAM CSECT IS NAMED CCN AND IS 4294 BYTES LONG.

THE STATIC CSECT IS NAMED ****CCNA AND IS 1644 BYTES LONG.

*STATISTICS# SOURCE RECORDS = 58, PROG TEXT STMTS = 48, OBJECT BYTES = 4294

COMPILER DIAGNOSTICS.

WARNINGS.

ITEM05261 1 OPTION MAIN HAS NOT BEEN SPECIFIED FOR THE EXTERNAL PROCEDURE, STATEMENT NUMBER 1
ITEM07641 ONE OR MORE FIXED BINARY ITEMS OF PRECISION 15 OR LESS HAVE BEEN GIVEN HALFWORD STORAGE. THEY
ARE FLAGGED '*****' IN THE XREF/ATR LIST.

END OF DIAGNOSTICS.

COMPILE TIME 10.96 SECS
ELAPSED TIME 37.85 SECS
EXECUTION TERMINATED

51	BARBADOS	613
52	BASUTOLAND	690
53	BECHUANALAND	618
54	BELGIUM	614
55	BERMUDA	615
56	BHUTAN	616
57	BOLIVIA	617
58	BORNED NORTH	739
59	BORNED SOUTH	673
60	BOTSWANA	618
61	BRAZIL	619
62	BRUNEI	620
63	BULGARIA	621
64	BURMA	622
65	BURUNDI	623
66	CAERNARVONSHIRE	552
67	CAMBRIDGESHIRE/ELY	404
68	CANTERBURY	467
69	CARDIFF	563
70	CARDIGANSHIRE	553
71	CARLISLE	468
72	CARMARTHENSHIRE	554
73	CHESHIRE	405
74	CHESTER	469
75	CHANNEL ISLES	591
76	CORNWALL	406
77	COVENTRY	470
78	CROYDON	306
79	CUMBERLAND	407
80	CAMBODIA	624
81	CAMEROON	625
82	CANADA	626
83	CANARY ISLANDS	751
84	CAPE VERDE IS.	788
85	CAYMAN IS.	789
86	CENTRAL AFRICAN REPUBLIC	627
87	CEYLON	628
88	CHAD	629
89	CHILE	630
90	CHINA, COMMUNIST	631
91	CHINA, NATIONALIST	652
92	COLOMBIA	632
93	CONGO DEMOCRATIC REP.	633
94	CONGO (BRAZZAVILLE)	634
95	COSTA RICA	635
96	CRETE	661
97	CUBA	636
98	CURACAO (DUTCH)	637
99	CYPRUS	638
100	CZECHOSLOVAKIA	639
101	DARLINGTON	472
102	DENBIGHSHIRE	555
103	DERBY	473
104	DERBYSHIRE	408
105	DEVON	409
106	DEWSBURY	474
107	DONCASTER	475
108	DORSET	410
109	DUDLEY	476
110	DURHAM	411

111 DAHOMEY
112 DENMARK
113 DOMINICA
114 DOMINICAN REPUBLIC
115 DUBIA
116 EALING
117 EASTBOURNE
118 ENFIELD
119 ESSEX
120 EXETER
121 ECUADOR
122 EGYPT
123 EIRE
124 EL SALVADOR
125 ELLICE IS.
126 EQUATORIAL GUINEA
127 ERITREA
128 ESTONIA
129 ETHIOPIA
130 FLINTSHIRE
131 FALKLAND IS.
132 FIJI
133 FINLAND
134 FORMOSA
135 FRANCE
136 FRENCH GUIANA
137 FRENCH WEST INDIES
138 FUJAIRAH
139 GATESHEAD
140 GLAMORGAN
141 GLOUCESTER
142 GLOUCESTERSHIRE
143 GREAT YARMOUTH
144 GRIMSBY
145 GUERNSEY
146 GABOON
147 GAMBIA
148 GERMANY, WEST
149 GERMANY, EAST
150 GHANA
151 GIBRALTAR
152 GILBERT/ELLIS IS.
153 GREECE
154 GREENLAND
155 GRENADA
156 GUADELOUPE
157 GUATAMALA
158 GUIANA (BRITISH)
159 GUIANA (DUTCH)
160 GUIANA (FRENCH)
161 GUINEA
162 GUYANA
163 HALIFAX
164 HAMPSHIRE
165 HARINGEY
166 HARROW
167 HARTLEPOOL
168 HASTINGS
169 HAVERING
170 HEREFORDSHIRE

640
641
642
643
754
307
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412
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768
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665
753
791
664
665
484
414
309
310
533
485
311
415

231	MIDDLESBROUGH	494
232	MONTMOUTHSHIRE	550
233	MONTGOMERYSHIRE	566
234	MACAO	694
235	MADAGASCAR	695
236	MADEIRA	728
237	MALAGASY	695
238	MALAWI	696
239	MALAYA	697
240	MALDIVE IS.	793
241	MALI	699
242	MALTA	700
243	MARTINIQUE	792
244	MAURITANIA	701
245	MAURITIUS	702
246	MEXICO	703
247	MONACO	653
248	MONGOLIA, OUTER	704
249	MONTSERAT	705
250	MOROCCO	706
251	MOZAMBIQUE	707
252	MUSCAT/OMAN	708
253	NEWCASTLE	495
254	NEWHAM	316
255	NEWPORT	565
256	NORFOLK	429
257	NORTHAMPTON	496
258	NORTHAMPTONSHIRE	430
259	NORTHERN IRELAND	699
260	NORTHUMBERLAND	431
261	NORWICH	497
262	NOTTINGHAM	498
263	NOTTINGHAMSHIRE	432
264	NAMIBIA	798
265	NEPAL	709
266	NETHERLANDS	710
267	NETHERLANDS ANTILLES	637
268	NEW CALEDONIA	711
269	NEW GUINEA	712
270	NEW HEBRIDES	713
271	NEW ZEALAND	714
272	NICARAGUA	715
273	NIGER	716
274	NIGERIA	717
275	NORWAY	718
276	NOT KNOWN	782
277	NYASALAND	696
278	OLDHAM	499
279	OXFORD	500
280	OXFORDSHIRE	433
281	PEMBROKESHIRE	561
282	PLYMOUTH	501
283	PORTSMOUTH	502
284	PRESTON	503
285	PAKISTAN	721
286	PANAMA	722
287	PAPUA	723
288	PARAGUAY	724
289	PERSIA	674
290	PERU	725

291	PHILIPPINES	726
292	POLAND	727
293	PORTUGAL	728
294	PORTUGUESE EAST AFRICA	707
295	PORTUGUESE WEST AFRICA	794
296	PORTUGUESE GUINEA	794
297	PORTUGUESE TIMOR	786
298	PUERTO RICO	730
299	QUATAR	731
300	RADNORSHIRE	562
301	REDBRIDGE	317
302	RICHMOND-UPON-THAMES	318
303	RFADING	504
304	ROCHDALE	505
305	ROTHERHAM	506
306	RUTLAND	435
307	RAS AL KHAIMAH	764
308	REUNION	795
309	RHODESIA, NORTHERN	781
310	RHODESIA	732
311	RUMANIA	733
312	RWANDA	734
313	SALFORD	508
314	SALOP	436
315	SHEFFIELD	509
316	SOLIHULL	530
317	SOMERSET	437
318	SOUTHAMPTON	511
319	SOUTHEND-ON-SEA	512
320	SOUTHPORT	513
321	SOUTH SHIELDS	514
322	STAFFORDSHIRE	438
323	ST. HELENS	507
324	STOCKPORT	515
325	STOKE-CN-TRENT	516
326	SUFFOLK, E	439
327	SUFFOLK, W	440
328	SUNDERLAND	517
329	SURREY	441
330	SUTTON	319
331	SUSSEX, E	442
332	SUSSEX, W	443
333	SWANSEA	566
334	ST. HELENA	735
335	ST. KITTS-NEVIS	736
336	ST. LUCIA	737
337	ST. TOME AND PRINCIPIE	794
338	ST. VINCENT	738
339	SABAH	739
340	SALVADOR	646
341	SAMOA (U.S.)	796
342	SAN MARINO	678
343	SARAWAK	742
344	SAUDI ARABIA	743
345	SCOTLAND	299
346	SENEGAL	785
347	SEYCHELLES	744
348	SHARJAH	764
349	SIAM	760
350	SIERRA LEONE	745

351	SIKKIM	797
352	SINGAPORE	746
353	SLOMON IS.	747
354	SOMALI REPUBLIC	748
355	SOMALILAND (FRENCH)	749
356	SOUTH AFRICA	750
357	SOUTH WEST AFRICA	798
358	SOUTH YEMEN RFP.	601
359	SPAIN	751
360	STATELESS	783
361	SUDAN	752
362	SURINAM	753
363	SWAZILAND	754
364	SWEDEN	755
365	SWITZERLAND	756
366	SYRIAN ARAB RFP.	757
367	TEESSIDE	535
368	TORBAY	534
369	TYNEMOUTH	518
370	TAIWAN	652
371	TANGANYIKA	759
372	TANGIERS	706
373	TANZANIA	759
374	TCHAD	629
375	THAILAND	760
376	TIBET	761
377	TOGO	762
378	TONGA	784
379	TRINIDAD AND TOBAGO	763
380	TRISTAN DA CUNHA	735
381	TRUCIAL STATES	764
382	TUNISIA	765
383	TURKEY	766
384	TURKS AND CAICOS IS.	799
385	UGANDA	767
386	UMALQUAIWAIN	764
387	UNITED ARAB REPUBLIC	768
388	UPPER VOLTA	769
389	URUGUAY	770
390	U.S.A.	771
391	U.S.S.R.	772
392	VATICAN CITY	678
393	VENEZUELA	773
394	VIETNAM, SOUTH	774
395	VIETNAM, NORTH	775
396	VIRGIN IS. (BRITISH)	776
397	VIRGIN IS. (U.S.)	800
398	WAKEFIELD	519
399	WALLASEY	520
400	WALSALL	521
401	WALTHAM FOREST	320
402	WARLEY	532
403	WARRINGTON	522
404	WARWICKSHIRE	444
405	WEST BRDMWICH	523
406	WESTMORLAND	445
407	WIGAN	526
408	WILTSHIRE	446
409	WOLVERHAMPTON	527
410	WORCESTER	528

411	WORCESTER SHIRE	447
412	WEST INDIES	777
413	WESTERN SAMOA	741
414	WINDWARD IS.	778
415	YORK	529
416	YORKS. E RIDING	448
417	YORKS. N RIDING	449
418	YORKS. W RIDING	450
419	YFEMEN	779
420	YUGOSLAVIA	780
421	ZAIRE	633
422	ZAMBIA	781
423	ZANZIBAR	759
424	METROPOLITAN (LARGE CITY CENTRE)	
425	SUBURBAN (OUTSKIRTS OF LARGE CITY)	
426	RURAL URBAN (SMALL TOWN OR VILLAGE)	
427	RURAL	
428	C. OF E.	
429	P.C.	
430	NONCONFORMIST	
431	JEWISH	
432	AGNOSTIC/ATHEIST	
433	HUMANIST/OTHER	
434	PROFESSIONAL AND HIGH ADMINISTRATIVE	
435	MANAGERIAL AND EXECUTIVE	
436	NON-MANUAL, HIGHER GRADE	
437	NON-MANUAL, LOWER GRADE	
438	SKILLED MANUAL	
439	SEMI-SKILLED MANUAL	
440	INDEPENDENT OR DIRECT GRANT SCHOOL...MIXED	
441	INDEPENDENT OR DIRECT GRANT SCHOOL...SINGLE SEX	
442	GRAMMAR...MIXED	
443	GRAMMAR...SINGLE SEX	
444	COMPREHENSIVE...MIXED	
445	COMPREHENSIVE...SINGLE SEX	
446	SEC. MODERN SCHOOL...MIXED	
447	SEC. MODERN SCHOOL...SINGLE SEX	
448	COLL. OF FURTHER EDUCATION/TECHNICAL COLL	
449	HIGHER ADMINISTRATIVE PROFESSIONAL AND MANAGERIAL	
450	FARMERS, INTERMEDIATE ADMINISTRATIVE PROFESSIONAL & MANAGERIAL	
451	ROUTINE NON-MANUAL AND SERVICE. MANUAL SKILLED	
452	SEMI-SKILLED WORKERS	
453	UNSKILLED WORKERS	
454	ROADSIDE OR HAMLET I.E. LESS THAN 150 PEOPLE	
455	VILLAGE OR SMALL TOWN I.E. 150 TO 2,500 PEOPLE	
456	TOWN I.E. 2,500 TO 10,000 PEOPLE	
457	LARGE TOWN I.E. 10,000 TO 500,000 PEOPLE	
458	METROPOLIS I.E. OVER 500,000 PEOPLE	
459	N/A	
460	SINGLE	
461	MARRIED	
462	DIVORCED/WIDOWED	
463	TEACHING OR YOUTH SERVICE	
464	CENTRAL OR LOCAL GOVERNMENT	
465	H.M. FORCES	
466	POLICE	
467	NURSING	
468	OTHER MEDICAL OR WELFARE SERVICE	
469	BANKING/INSURANCE/ACCOUNTANCY	
470	COMMERCE	

471	INDUSTRY	060	30	046	31	031	32	030	33	041	34	042	35	044	36	043	37	045	38	033	39
472	OTHER	100	39	051	40	053	41	098	42	094	43	104	44	092	45	004	46	005	46	029	46
473	C. OF F.	032	46	040	46	056	46	007	46	055	46	054	46	008	46	096	46	073	46	022	47
474	R.C.	022	48	012	49	013	50	011	51	014	51	015	51	016	51	017	51	010	51	021	52
475	NONCONFORMIST	022	53	022	54	026	55	023	56	025	57	086	58	088	59	089	60	027	61	048	61
476	OTHER RELIGION	047	61	020	61	083	61	024	61	006	61	097	61	090	61	082	61	038	61	037	61
477	HUMANIST/AGNOSTIC/ATHEIST	034	61	058	61	039	61	067	61	049	62	050	63	091	64	052	65	099	66	067	67
478	SCOTLAND AND NORTHERN IRELAND	101	68	059	69	102	69	002	69	103	69	066	69	093	69	061	46	087	61		
479	NORTHERN																				
480	YORKSHIRE AND HUMBERSIDE																				
481	NORTH WEST																				
482	EAST MIDLAND																				
483	WEST MIDLAND																				
484	WALES AND MONTMOUTH																				
485	SOUTH WEST																				
486	EAST ANGLIA																				
487	SOUTH EAST																				
488	OTHER/ABROAD																				
489	ABCDEFGHIJKLMNPOQRSTUVWXYZ																				
490	079																				
491		060	30	046	31	031	32	030	33	041	34	042	35	044	36	043	37	045	38	033	39
492		100	39	051	40	053	41	098	42	094	43	104	44	092	45	004	46	005	46	029	46
493		032	46	040	46	056	46	007	46	055	46	054	46	008	46	096	46	073	46	022	47
494		022	48	012	49	013	50	011	51	014	51	015	51	016	51	017	51	010	51	021	52
495		022	53	022	54	026	55	023	56	025	57	086	58	088	59	089	60	027	61	048	61
496		047	61	020	61	083	61	024	61	006	61	097	61	090	61	082	61	038	61	037	61
497		034	61	058	61	039	61	067	61	049	62	050	63	091	64	052	65	099	66	067	67
498		101	68	059	69	102	69	002	69	103	69	066	69	093	69	061	46	087	61		
499		3	4	6	7	9	11	13	14	16	20										
500		4	5	0	6	7	8	9	10	11	13										
501		7	9	11	13	15	17	19	21	22	26	15.50	3.69								
502		6	8	9	11	13	16	18	19	21	26	13.94	3.29								
503		5	8	10	13	15	17	19	21	23	26	15.73	4.40								
504		4	6	9	11	12	14	16	17	19	20	12.73	3.60								
505		2	4	7	10	13	16	18	20	22	26	13.01	5.24								
506		2	3	5	6	8	10	12	14	15	20	8.79	3.49								
507		3	4	6	7	9	11	12	14	15	20	9.47	3.13								
508		5	6	8	9	11	13	15	17	18	26	11.68	3.41								
509		5	7	8	9	10	12	13	15	16	20	11.07	2.63								
510		3	4	6	8	9	11	13	15	17	26	10.65	3.90								
511		4	5	6	8	9	10	12	13	15	20	9.64	2.75								
512		3	4	6	7	9	11	13	15	17	20	9.97	3.50								
513		3	5	6	8	10	11	13	14	15	20	10.14	3.07								
514		3	4	7	9	12	14	17	19	21	26	12.01	4.81								
515		3	4	6	8	9	11	13	15	16	20	10.08	3.43								
516		4	5	6	7	8	9	10	11	12	13	8.83	1.89								
517		6	8	11	13	15	17	19	20	22	26	15.14	3.90								
518		5	7	9	11	13	15	17	19	21	26	13.93	4.12								
519		6	8	11	13	16	18	20	22	23	26	16.44	4.52								
520		3	5	7	9	11	13	15	17	18	20	11.95	3.75								
521		2	4	7	10	13	17	19	22	23	26	13.75	5.77								
522		2	3	4	6	8	11	13	14	16	20	9.24	3.82								
523		2	3	5	7	8	10	12	13	15	20	8.97	3.34								
524		5	7	8	10	12	14	16	18	19	26	12.69	3.62								
525		2	3	5	6	7	9	10	11	13	20	8.25	2.68								
526		2	4	6	7	9	12	14	16	18	26	10.18	3.03								
527		3	4	6	8	9	11	12	14	15	20	10.16	3.23								
528		2	4	6	8	9	11	14	15	17	20	10.28	3.75								
529		4	6	8	9	11	13	14	16	17	20	11.72	3.27								
530		3	5	7	10	12	15	17	19	21	26	12.77	4.82								

8. INPUT DATA.

8.1 DATA LISTINGS

THIS SECTION PROVIDES EXAMPLES OF THE INPUT DATA TO BCRS THE EXAMPLES PROVIDED CAN BE SUMMARISED AS FOLLOWS:

8.1.1 DATA LISTINGS FOR PROGRAMME R.

- 1 ADMISSIONS RECORDS
- 2 INTELLIGENCE TEST RECORDS
- 3 ANNUAL UPDATES
- 4 WITHDRAWALS
- 5 CHANGES OF COURSE/SUBJECT
- 6 SPECIFIC FIELD ALTERATIONS

8.1.2 DATA LISTINGS PROGRAMMES F AND I.

- 1 THE SPECIAL REQUEST, REQUEST='*' IN PROGRAMME F
- 2 THE SPECIAL REQUEST, REQUEST='*' IN PROGRAMME I

8.1.3 SELECTED OPTION PARAMETER CARDS.

THE FORMAT DESCRIBING THE DATA APPEARING IN SECTION 8.1.1 CAN BE FOUND IN 'BCRS....BFDE COLLEGE RECORD SYSTEM', APPENDIX 2.

2 INTELLIGENCE TEST RECORDS

1 STUD1969 CONSTNTS 1969 2 VT='F' NT='1' ;
2 66/02669353630412216127475409408111213151405111516120714129714
3 67/04251302416323741135422480908101616171026121212081613097508
4 68/01269303633382914165445810212110713110606171120140911151015
5 68/45700384128441910141424809014100918200512121210110912051015
6 68/90750373326314013176465510112120915180511130917141217160514
7 69/42051372625362927162485610414101214191219120810061507061213
8 69/42052273223423620144344007416061214201212071009141110071211
9 69/42053313831403307169445409810081215191016121804121208060915
10 69/42056403417452915170434008309061608231417100808020816081208
11 69/42057243237473413131364708308071017190616140812081009100318
12 69/42058362729402325160354708206061310150621151015091311150711
13 69/42059403738321617127375409110091820220608141008100910111510
14 69/42060342729393319162404608612111122221012101612102111131013
15 69/42061293135311836151354708213051409051709160818160812181210
16 69/42062342926433414154364908515091715130716130717120911060812
17 69/4206333341938243213343550991609191321513080808140313121107
18 69/42064363521342529135476411112092117171515100614131010071205
19 69/42065253225314720200324607814091217151216061310111308041014
20 69/42066272019432150198465510116101917131721140315160710121712
21 69/42067183426381549189404908905051419121516090915080810161417
22 69/4206925202142225022546621080911131018171013131212107061513
23 69/42070324724461615176495710620081915221807090810081612080512
24 69/42071224821373230153415309410101221160614150910061111080916
25 69/42073403217442225160455710206071110061206141217121110150911
26 69/42074282936452319124416310411121218220719110816071405110418
27 69/42075182924502039161415109212081111200809131315131014100608
28 69/42078362044292625181374608311081120070403171719102212170722
29 69/42081282626432334183463708315101509220508100912101112080512
30 69/42082214022323926167323206414071719151008091614141409140414
31 *****

3 ANNUAL UPDATES

```

1  STUD1969  CONSTANTS  1969  3  VP='0' ;
2  60/059531  *A3=P*      *A4=D*      *A5=P*      *A6=P*      *A7=P*      *A8=P*      *A9=P*
3  66/026691  *A1=C*      *A3=B+*      *A4=S*      *A5=P*      *A6=A*      *A7=C++*      *A8=C+*
4  66/026691  *A9=C*
5  68/012691  *A1=B-*      *A3=A-*      *A4=S*      *A5=P*      *A6=B*      *A7=C*      *A8=D*
6  68/012691  *A9=R*      *A3=C*      *A4=S*      *A5=P*      *A6=R*      *A7=C*      *A8=C-*
7  68/457001  *A1=R*      *A3=C*      *A4=S*      *A5=P*      *A6=R*      *A7=C*      *A8=C-*
8  68/457001  *A9=C*
9  68/907501  *A1=C*      *A3=C+*      *A4=S*      *A5=P*      *A6=C*      *A7=C++*      *A8=C-*
10 68/907501  *A9=D*
11 69/420511  *A1=B-*      *A3=C*      *A4=S*      *A5=P*      *A6=R*      *A7=C*      *A8=C*
12 69/420511  *A9=C*
13 69/420521  *A1=C*      *A3=C*      *A4=S*      *A5=P*      *A6=C*      *A7=C+*      *A8=C+*
14 69/420521  *A9=A*
15 69/420531  *A1=B-*      *A2=B-*      *A3=B-*      *A4=S*      *A5=P*      *A6=B*      *A7=C+*
16 69/420531  *A8=B-*      *A9=B*
17 69/420561  *A1=C*      *A3=B*      *A4=S*      *A5=P*      *A6=C*      *A7=C+*      *A8=C*
18 69/420561  *A9=C*
19 *****
20 STUD1969  CONSTANTS  1969  3  VP='0' ;
21 66/026692  *A10=B*      *A12=B*      *A13=S*      *A15=A*      *A15=A*      *A17=A*      *A19=B-*
22 66/026692  *A20=A+*      *A21=A*      *A22=A*      *A23=PASS*      *A17=A*      *A19=B-*
23 68/012692  *A10=C-*      *A11=E*      *A12=C+*      *A13=S*      *A17=C*      *A23=TO RE COUP P.F*
24 68/457002  *A10=C+*      *A12=C*      *A13=S*      *A15=B-*      *A16=B*      *A17=B*      *A19=C*
25 68/457002  *A20=B-*      *A21=C*      *A23=PASS*
26 68/907502  *A10=C*      *A12=C*      *A13=S*      *A15=B-*      *A16=B*      *A17=B*      *A18=C*
27 68/907502  *A19=B*      *A20=B*      *A21=C*      *A22=A*      *A23=PASS*
28 69/420512  *A10=B-*      *A12=C+*      *A13=S*      *A15=B*      *A17=B-*      *A19=A-*      *A20=A*
29 69/420512  *A21=B*      *A23=PASS*
30 69/420522  *A10=B*      *A12=C+*      *A13=S*      *A15=B-*      *A16=B*      *A17=C*      *A19=B*
31 69/420522  *A20=B-*      *A21=A*      *A22=A*      *A23=PASS*
32 69/420532  *A10=B-*      *A11=B-*      *A12=B-*      *A13=S*      *A15=B*      *A17=C*      *A19=B*
33 69/420532  *A20=A*      *A21=A+*      *A23=PASS*
34 *****
35 STUD1969  CONSTANTS  1969  3  VP='1' ;
36 66/026693  *A24=C*      *A26=D*      *A27=P*
37 67/042513  *A24=P*      *A26=P*      *A27=P*
38 68/012693  *A24=F*      *A26=F*      *A27=P*      *A33=F*      *A34=F*      *A35=F*      *A39=2*
39 68/457003  *A24=P*      *A26=P*      *A27=P*
40 68/907503  *A24=P*      *A26=C*      *A27=P*
41 69/420513  *A24=P*      *A26=P*      *A27=P*
42 69/420523  *A24=P*      *A26=P*      *A27=P*
43 69/420533  *A24=P*      *A26=P*      *A27=P*
44 *****
45 STUD1969  CONSTANTS  1969  3  VP='1' DES='TRANS' ;
46 60/05963  F 1
47 66/02669  F 1
48 67/04251  F 1
49 68/01269  F 3
50 68/45700  F 1
51 68/90750  F 1
52 69/42051  F 1
53 69/42052  F 1
54 *****

```

4 WITHHPAWALS

1	STUD1971	CONSTNTS	1971	4	VP='1'	DES='TRANS'	:
2	71/42051	091272	9				
3	71/42060	080772	9				
4	71/42066	240473	3				
5	71/42073	111271	9				
6	71/42078	040172	2				
7	71/42080	080772	9				
8	71/42087	080772	2				
9	71/42097	091171	9				
10	71/42106	240372	9				
11	71/42120	080772	5				
12	71/42122	040172	9				
13	*****						

5 CHANGES OF COURSE/SUBJECT

```

1 STUD1977 CCNSTNTS 1977 9 VF='1' DFS='TPANS' ;
2 70/42053 S
3 70/42054 C
4 70/42055 S
5 70/42056 S
6 70/42057 C
7 *****

```

1	09720773	111	1	1
1	09720773	111	1	1
1	09720775	111	1	092
1	09720775	111	1	052
1	09720775	111	1	011

6 SPECIFIC FIELD ALTERATIONS

1 STUD1972 CONSTANTS 1972 9 VP='1' ;
2 72/42061 RECORD.NAME='SMITH, DAVID' ;
3 72/42062 RECORD.GENERAL.REL='1' RECORD.GENERAL.SET='4' ;
4 72/42069 RECORD.GENERAL.SUCC='5' ;
5 72/42069 RECORD.DESNO='72/42090' ;
6 72/42088 RECORD.GENERAL.FPOS='0203' RECORD.GENERAL.DDR='021046' ;
7 *****

8.1.2 DATA LISTINGS FOR PROGRAMS F AND I.

1 THE SPECIAL REQUEST, REQUEST='*' IN PROGRAM F

```
1 STUD1969 CONSTNTS 1969 2 REQUEST='*' ;
2 69/42055
3 69/42056
4 69/42057
5 69/42058
6 69/42059
7 69/42251
8 69/42252
9 69/42253
10 69/42254
11 69/42255
12 *****
```

2 THE SPECIAL REQUEST, REQUEST='*' IN PROGRAM I

```
1 STUD1969 CONSTNTS 1969 4 Y1='F' REQUEST='*' ;
2 69/42156
3 69/45157
4 69/42180
5 69/42181
6 69/42185
7 69/42199
8 69/42200
9 69/42201
10 69/42202
11 69/42220
12 *****
```

2.4 STUD1972 CONSTNTS 1972 2 WFL='111' WCR='*' FREQ='1' REQUEST=' 1>25 ' ;

THIS CARD WILL PRODUCE A LIST OF THE D.F.S.NOS. OF THE STUDENTS IN THE FILE 'STUD1972' WHO WERE OVER 25 ON ADMISSION. A SET OF GENERAL INFORMATION FREQUENCY TABLES WILL ALSO BE GIVEN.

3. PROGRAMME 1.

3.1 STUD1970 ***** 1970 1 YT='F' WRL='111' WCR='*' ;

THIS CARD WILL PRODUCE A SET OF TOTALS, MEANS AND STANDARD DEVIATION TABLES OF THE INTELLIGENCE TEST SCORES OF THE STUDENTS IN THE FILE 'STUD1970'.

3.2 STUD1970 ***** 1970 2 YT='F' WRL='111' WCR='*' ;

THIS CARD WILL PRODUCE A SET OF FREQUENCY TABLES OF THE SCORES OF THE STUDENTS IN THE FILE 'STUD1970'.

3.3 STUDENTS ***** 1969 3 YT='F' WRL='100' WCR='*' PI='1' ;

THIS CARD WILL LIST THE INTELLIGENCE TEST SCORES OF THOSE STUDENTS WHO HAVE WITHDRAWN FROM THE FILE 'STUDENTS'.

3.4 STUDENTS ***** 1972 3 YT='F' WRL='111' WCR='*' PI='2' ;

THIS CARD WILL LIST THE D.F.S.NOS. OF STUDENTS IN THE FILE 'STUDENTS' WHO HAVE INTELLIGENCE TEST SCORES.

3.5 STUD1969 ***** 1969 4 YT='F' REQUEST=' 1>25 & 3=2 ' ;

THIS CARD WILL PROVIDE TOTALS, MEANS, STANDARD DEVIATIONS AND FREQUENCY TABLES OF THE STUDENTS IN THE FILE 'STUD1969' WHO WERE OVER 25 AND MARPIED WHEN ADMITTED.

NB NOTE THAT AS PROGRAMME 1 DOES NOT REQUIRE THE DATA CONSTANTS, THE FILE NAME HAS BEEN SPECIFIED AS ***** IN EACH CASE.

4. PROGRAMME D.

4.1 STUD1972 CONSTNTS 1972 DES='TRANS' ;

THE OPTION PARAMETER CARD FOR PROGRAMME D GIVEN ABOVE INFORMS BCPS THAT THE TRANSACTION FILE IS KNOWN AS 'TRANS', AND THE DATA FILE IS 'STUD1972'.

9. OUTPUT LISTINGS.

9.1 THIS SECTION CONTAINS EXAMPLES OF THE OUTPUT PROVIDED BY THE BCPS PROGRAMS.

THE FOLLOWING EXAMPLES ARE INCLUDED:

9.1.1 PROGRAMME R

- 1 '1970' FILE LISTING (OPTION 6, PI='2')
- 2 '1970' FILE LISTING (OPTION 6, PI='3')
- 3 '1972' FILE LISTING (OPTION 6, PI='4')

9.1.2 PROGRAMME F

- 1 '1972' GENERAL FREQUENCIES (OPTION 1)
- 2 '1972' REQUEST, 'AGE<21' (OPTION 2)
- 3 '1972' REQUEST & FREQUENCIES, 'AGE<21' (OPTION 2)
- 4 '1972' REQUEST, 'AGE<25 & MARRIED' (OPTION 2)

9.1.3 PROGRAMME I

- 1 '1972' TOTALS, MEANS & STANDARD DEVIATIONS (OPTION 1)
- 2 '1972' FREQUENCIES (OPTION 2)
- 3 '1972' REQUEST, 'AGE<25' (OPTION 4)

BCRS...REDE COLLEGE RECORD SYSTEM

PROGRAMME R

OPTION REQUESTED

YEAR REQUESTED

5
1973

PRINT INDICATOR

2

1970 FILE.....215 STUDENTS INCLUDED.....NUMBERS FOLLOWED BY * SHOW THAT THE STUDENT HAS WITHDRAWN FROM THE COLLEGE
NUMBERS FOLLOWED BY + SHOW THAT THE STUDENT HAS COMPLETED HIS COURSE AND LEFT

60/02244	65/10353	57/12382	67/42053*	70/15512	70/42051+	70/42052+	70/42053+	70/42054+	70/42055
70/42056+	70/42057+	70/42058*	70/42059+	70/42060+	70/42061+	70/42062+	70/42063+	70/42064+	70/42065+
70/42066*	70/42067*	70/42068	70/42069+	70/42070+	70/42071+	70/42072+	70/42073+	70/42074+	70/42075+
70/42076+	70/42077	70/42078+	70/42079+	70/42080*	70/42081+	70/42082+	70/42083+	70/42084+	70/42085+
70/42086	70/42087	70/42088+	70/42089+	70/42090+	70/42091+	70/42092+	70/42093	70/42094+	70/42095
70/42096+	70/42097+	70/42098+	70/42099+	70/42100+	70/42101	70/42102+	70/42103+	70/42104+	70/42105
70/42106+	70/42107+	70/42108	70/42109	70/42110+	70/42111+	70/42112+	70/42113+	70/42114+	70/42115*
70/42116+	70/42117*	70/42118+	70/42119+	70/42120+	70/42121+	70/42122+	70/42123+	70/42124+	70/42125+
70/42126*	70/42127	70/42128	70/42129+	70/42130+	70/42131+	70/42132	70/42133+	70/42134+	70/42135+
70/42136+	70/42137+	70/42138	70/42139	70/42140+	70/42141+	70/42142	70/42143+	70/42144+	70/42145
70/42146*	70/42147+	70/42148	70/42149+	70/42150+	70/42151+	70/42152+	70/42153*	70/42154+	70/42156+
70/42157	70/42158*	70/42159	70/42160+	70/42161+	70/42162	70/42163+	70/42164+	70/42165+	70/42166+
70/42167	70/42168+	70/42169+	70/42170+	70/42171+	70/42172+	70/42173+	70/42174	70/42175	70/42176*
70/42177	70/42178+	70/42179*	70/42180+	70/42181*	70/42182+	70/42183*	70/42184	70/42185*	70/42186+
70/42187+	70/42188*	70/42189	70/42190	70/42191+	70/42192	70/42193+	70/42194+	70/42195*	70/42196*
70/42197+	70/42198+	70/42199+	70/42200+	70/42201+	70/42202+	70/42203	70/42204	70/42205+	70/42206+
70/42207+	70/42209+	70/42210	70/42211+	70/42212+	70/42213+	70/42214	70/42215+	70/42216+	70/42217+
70/42218*	70/42219+	70/42220*	70/42221	70/42222+	70/42223	70/42224+	70/42225+	70/42226*	70/42227+
70/42228+	70/42229+	70/42230+	70/42231+	70/42232	70/42233+	70/42234+	70/42235+	70/42236+	70/42237
70/42238	70/42239+	70/42240*	70/42241+	70/42242+	70/42243*	70/42244	70/42245+	70/42246	70/42247
70/42249	70/42250	70/42251	70/42252	70/42253	70/42254	70/42255	70/42256	70/42257	70/42258
70/42259	70/42260	70/42261	70/42263	70/42264					

DATE OF LISTING 22/08/73

BCRS...BEDE COLLEGE RECORD SYSTEM

PROGRAMME R	
OPTION REQUESTED	5
YEAR REQUESTED	1970
PRINT INDICATOR	3

1970 FILE.....215 STUDENTS INCLUDED

NAME	D.F.S.NO.	BIRTH	START	FINISH
ADAMS, PAUL	70/42051	12/12/51	25/09/70	08/07/73
ALBERT, CHRISTOPHER CHARLES G.	70/42141	05/06/52	25/09/70	08/07/73
ALDERSON, JAMES ARTHUR	70/42052	18/03/37	25/09/70	08/07/73
ALLAN, MAURICE	70/42053	09/01/35	25/09/70	08/07/73
APPLEBY, JOHN RAYMOND	57/42053	19/09/47	25/09/70	24/08/72
ARCHER, ANDREW JAMES FRANK	70/42054	24/05/52	25/09/70	08/07/73
ARNOLD, ANTHONY IAN CRICHTON	70/42055	04/11/49	25/09/70	
ASHCROFT, JOHN	70/42253	12/11/39	25/09/70	
ATKINSON, NEIL	70/42054	16/09/51	25/09/70	08/07/73
BAINBRIDGE, IAN	70/42057	10/05/51	25/09/70	08/07/73
BAITEY, GEORGE	70/42059	01/11/51	25/09/70	06/04/71
BALL, GRAHAM ROBERT	70/42059	07/01/51	25/09/70	08/07/73
BATY, EDWARD STANLEY	70/42060	25/11/51	25/09/70	08/07/73
BECK, PAUL ANTHONY	70/42061	04/05/50	25/09/70	08/07/73
BELL, ALAN	70/42062	13/08/48	25/09/70	08/07/73
BELL, IAN DAVID	70/42063	14/11/51	25/09/70	08/07/73
BELL, MALCOLM ARTHUR	70/42064	01/05/52	25/09/70	08/07/73
BENDELOW, WILLIAM EDWARD	70/42070	16/01/39	25/09/70	08/07/73
REST, WILLIAM	70/42071	23/07/52	25/09/70	08/07/73
BESTWICK, NEIL HAYON	70/42244	23/08/48	25/09/70	
BETRIDGE, JOHN RICHARD	70/42072	15/08/51	25/09/70	08/07/73
BIRD, OLIVER JAMES	70/42073	06/11/51	25/09/70	08/07/73
BISHOP, CHARLES RICHARD HUGH	70/42074	12/01/50	25/09/70	08/07/73
BLADEN, TERENCE EDWARD	70/42260	26/06/47	25/09/70	
BLAKEMAN, PETER ANDREW	70/42068	11/11/47	25/09/70	08/07/73
BLOOM, JOHN	70/42069	24/09/48	25/09/70	
BOWE, JOSEPH ARTHUR	70/42067	30/06/52	25/09/70	11/12/71
BRENT, GEORGE JOSEPH PETER	70/42066	09/02/48	25/09/70	18/06/71
BRENT, STEPHEN BARRINGTON	70/42065	28/03/51	25/09/70	08/07/73
BROOK, JOHN WILLIAM	70/42075	16/05/50	25/09/70	08/07/73
BROWN, LESLIE FORSTER	70/42076	08/03/51	25/09/70	08/07/73
BROWN, STEWART JAMES	70/42077	30/01/52	25/09/70	
BRYAN, MICHAEL LENNARD	70/42078	11/02/51	25/09/70	08/07/73
BRYSON, DAVID THOMAS WARWICK	70/42079	20/06/50	25/09/70	08/07/73
BUCKNOLE, KIM	70/42080	18/01/51	25/09/70	19/04/71
BUNKER, NIGEL STEPHEN	70/42081	09/07/52	25/09/70	08/07/73
BURTON, COLIN GEORGE	70/42082	05/02/41	25/09/70	08/07/73
CALLADINE, MURRAY JOHN	70/42083	03/02/52	25/09/70	08/07/73
CANTHORN, IAN DATES	70/42084	05/12/51	25/09/70	08/07/73
CHANCE, PHILIP	70/42085	09/06/51	25/09/70	
CHAPMAN, STEPHEN JOSEPH	70/42086	24/05/52	25/09/70	
CHIDGEY, ANTHONY PATRICK	70/42247	11/09/47	25/09/70	
CLAY-DOVE, GILBERT MARK WILLIAM	70/42087	15/03/52	25/09/70	08/07/73
CLAYTON, DONALD	70/42088	06/01/45	25/09/70	08/07/73
CLELLAND, JOHN	70/42089	05/08/52	25/09/70	08/07/73
COCKSHAW, JOHN	70/42090	25/10/46	25/09/70	08/07/73
CONROY, ALBERT JOSEPH	70/42091	20/04/50	25/09/70	08/07/73
CULLINGTON, NOEL	70/42092	30/01/36	25/09/70	08/07/73
DEGARA, MICHAEL ANDREW	70/42093	13/02/49	25/09/70	
DOBSON, ALAN	70/42094	25/12/47	25/09/70	08/07/73
DOBSON, TREVOR	70/42095	14/05/52	25/09/70	
DUFFIELD, ANDREW	70/42096	08/11/49	25/09/70	08/07/73
EARL, ROLAND DONALD	70/42097	08/07/30	25/09/70	08/07/73
EMMETT, COLIN JOHN	70/42098	13/07/52	25/09/70	08/07/73
ENGLISH, JOHN ALAN	70/42099	19/06/43	25/09/70	

NAME	D.O.B.S.NO.	BIRTH	START	FINISH
ERSKINE, MICHAEL ANDREW	70/42100	05/05/51	25/09/70	08/07/73
EVANS, AIDAN WILFRID	70/42101	29/05/52	25/09/70	
EYRES, CHRISTOPHER STEVEN	70/42102	26/01/51	25/09/70	08/07/73
FARROW, DAVID JOHN ALFRED	70/42103	03/08/51	25/09/70	08/07/73
FAULDER, PAUL ANTHONY	70/42104	21/01/52	25/09/70	08/07/73
FAULDS, IAN CRAIG	67/02382	04/07/48	25/09/70	
FAULKS, DAVID ANTHONY	70/42105	23/06/51	25/09/70	
FINCH, TREVOR RAYMOND JAMES	70/42106	06/10/51	25/09/70	08/07/73
FODGETT, THOMAS LESLIE	70/42107	04/02/52	25/09/70	08/07/73
FRENCH, LESLIE JAMES	70/42108	13/08/52	25/09/70	
GIBSON, THOMAS	70/42254	26/11/45	25/09/70	
GLENTON, RAYMOND	70/42109	09/02/51	25/09/70	
GREENSIT, THOMAS GRAHAM	70/42110	17/01/51	25/09/70	08/07/73
GREY, JOHN DAVID	70/42111	21/01/47	25/09/70	08/07/73
GRUDGINGS, ROBERT GRAHAM	70/42112	26/03/52	25/09/70	08/07/73
HAGUE, NIGEL	70/42113	09/07/51	25/09/70	08/07/73
HALL, DEPEK JAMES	70/42114	15/03/47	25/09/70	08/07/73
HAM, JOHN ALISTAIR	70/42261	18/08/48	25/09/70	
HANSON, JOHN BARRIE	70/42115	20/11/50	25/09/70	21/09/71
HARDING, PAUL	70/42116	17/03/52	25/09/70	08/07/73
HARKNESS, PATRICK JOHN	70/42117	22/03/52	25/09/70	10/04/71
HARMER, DAVID LLOYD	70/42118	05/08/52	25/09/70	08/07/73
HARVEY, GEORGE JEFFREY	70/42119	30/05/27	25/09/70	08/07/73
HEBDEN, ALAN RICHARD	70/42120	22/10/51	25/09/70	08/07/73
HENDRY, PETER JAMES BECKER	70/42121	02/04/49	25/09/70	08/07/73
HILL, THOMAS ELLIOTT	70/42122	14/05/51	25/09/70	08/07/73
HINMAN, DAVID FRANK	70/42123	03/04/52	25/09/70	08/07/73
HODGE, JOHN MARSHALL	70/42124	27/05/52	25/09/70	08/07/73
HODGSON, WILLIAM	70/42125	15/02/34	25/09/70	08/07/73
HOLMES, ALAN	70/42126	18/03/48	25/09/70	05/12/70
HOOKWAY, JOHN	70/42127	11/10/50	25/09/70	
HOOSON, GAVIN RODERICK	70/42128	18/09/50	25/09/70	
HOWARD, CHRISTOPHER PATRICK	70/42129	04/12/50	25/09/70	08/07/73
HOWDEN, IAN JAMES	70/42130	21/09/50	25/09/70	08/07/73
HUDSPETH, MALCOLM	70/42131	15/10/49	25/09/70	08/07/73
HUTTON, ANDREW RICHARD	70/42132	13/02/52	25/09/70	
JAGGARD, ANDREW QUENTIN	70/42133	27/04/52	25/09/70	08/07/73
JENKINS, ARCHIBALD AITKEN	70/42134	11/05/52	25/09/70	08/07/73
JOHNSON, IAN LESLIE	70/42135	27/09/51	25/09/70	08/07/73
JOHNSON, JOHN DAVID	70/42136	07/11/50	25/09/70	08/07/73
JOHNSTON, FREDERICK	70/42137	17/07/51	25/09/70	08/07/73
KEELER, STEPHEN ROBERT	70/42138	12/09/51	25/09/70	08/07/73
KERRIDGE, DONALD GEORGE	60/02246	12/12/32	25/09/70	
KIDD, CHARLES WILLIAM	70/42139	23/05/52	25/09/70	
KING, KEITH	70/42140	06/06/50	25/09/70	08/07/73
KINGHAM, MICHAEL ROY	65/10053	17/08/45	25/09/70	
LAUNDER, ROBIN	70/42142	09/10/51	25/09/70	
LEE, ALAN	70/42143	21/01/70	25/09/70	08/07/73
LEE, HENRY	70/42249	24/09/31	25/09/70	
LITTLE, RICHARD DUNCAN	70/42144	14/08/52	25/09/70	08/07/73
LORIMER, GEORGE PETER	70/42145	14/04/51	25/09/70	
LOTHIAN, ALAN CHARLES	70/42146	14/04/51	25/09/70	10/05/71
LUCAS, FRANK	70/42147	24/02/52	25/09/70	08/07/73
LUXTON, WILLIAM HENRY	70/42148	27/11/51	25/09/70	
LYNAS, PAUL	70/42250	23/05/48	25/09/70	
LYONS, HARRY	70/42149	10/10/44	25/09/70	08/07/73

NAME	D.E.S.NO.	BIRTH	START	FINISH
MABEY, MARTIN HILARY	70/42251	04/08/46	25/09/70	
MACRAE, ROSS JAMES PAUL	70/42243	12/12/32	25/09/70	
MADDISON, ANTHONY HAROLD	70/42154	16/07/50	25/09/70	08/07/73
MASON, JAMES FRANCIS	70/42155	11/06/51	25/09/70	09/12/72
MASSEY, CHRISTOPHER HEDLEY R.	70/42156	22/02/51	25/09/70	08/07/73
MATHER, ANDREW IAN	70/42157	19/01/51	25/09/70	
MAY, JOHN ALEXANDER CYRIL	70/42158	18/03/52	25/09/70	01/07/71
MAYCROCK, CHRISTOPHER REX	70/42159	24/06/52	25/09/70	
MCCOY, FRANK	70/15512	24/09/49	25/09/70	
MCEWAN, GRAHAM SHEARER	70/42151	02/01/52	25/09/70	08/07/73
MCHARG, DAVID	70/42255	19/06/42	25/09/70	
MCLEAN, DAVID IAN	70/42152	17/11/51	25/09/70	08/07/73
MCNALLY, DAVID	70/42153	08/08/44	25/09/70	01/07/72
MICKLEWRIGHT, JEFFREY RAYMOND	70/42160	16/06/51	25/09/70	08/07/73
MILLER, PETER EDWARD MCQUEEN	70/42161	15/08/52	25/09/70	08/07/73
MOFFAT, BRIAN	70/42162	02/09/52	25/09/70	
MOON, ROBERT WILLIAM	70/42163	18/03/51	25/09/70	08/07/73
MORTON, PAUL ANTHONY	70/42164	27/10/51	25/09/70	08/07/73
MOXON, PETER	70/42165	13/10/50	25/09/70	08/07/73
MURDAY, JOHN JAMES	70/42166	09/07/52	25/09/70	08/07/73
MURPHY, ALISTAIR DONALDSON	70/42167	11/12/49	25/09/70	
NEAL, JOHN	70/42168	20/02/52	25/09/70	08/07/73
NEASHAM, DAVID WILLIAM	70/42169	20/12/51	25/09/70	08/07/73
OAKES, BRIAN	70/42170	18/06/47	25/09/70	08/07/73
OGDEN, STEWART GALLOWAY	70/42171	23/09/48	25/09/70	08/07/73
OLIVER, RICHARD	70/42172	02/01/52	25/09/70	08/07/73
OLIVER, RICHARD	70/42173	08/11/35	25/09/70	08/07/73
ORMEROD, ERIC KENNETH	70/42174	31/12/51	25/09/70	
PAINE, JOHN HERBERT	70/42175	23/10/51	25/09/70	
PARISH, RICHARD	70/42176	11/10/51	25/09/70	
PARSISSON, GEORGE HENRY	70/42177	11/01/52	25/09/70	27/11/70
PEARSON, DAVID	70/42178	30/01/51	25/09/70	08/07/73
PHILIPS, REGINALD ENDIC KIRKLAND	70/42179	22/06/51	25/09/70	09/09/71
PHILLIPPE, TERRY	70/42180	13/12/49	25/09/70	08/07/73
PHILLIPS, JAMES CHRISTOPHER NIGEL	70/42181	13/12/48	25/09/70	18/06/71
PRICE, WILLIAM	70/42182	12/07/52	25/09/70	08/07/73
PURCIFER, DESMOND POWIS	70/42183	27/01/51	25/09/70	09/12/72
RAMSEY, PETER	70/42184	01/10/51	25/09/70	
RAYNER, ADRIAN GEORGE	70/42185	22/09/51	25/09/70	04/03/71
REDDING, ROBERT GEORGE	70/42186	13/02/46	25/09/70	08/07/73
REED, JEFFREY	70/42252	10/11/44	25/09/70	
RICHARDSON, LESLIE	70/42187	29/06/52	25/09/70	08/07/73
RICHMOND, RONALD	70/42256	25/08/29	25/09/70	
ROBERTSON, DAVID HARRY	70/42188	20/01/52	25/09/70	13/08/71
ROBSON, IAN	70/42189	20/07/52	25/09/70	
RUFFLE, JOHN EDWARD	70/42190	03/01/52	25/09/70	
RUTTER, ALAN FRANK	70/42191	16/02/52	25/09/70	08/07/73
SAWYERS, MICHAEL FRANCIS	70/42192	17/03/51	25/09/70	
SCOFFIN, ANTHONY GEORGE	70/42193	31/01/52	25/09/70	08/07/73
SCOTT, ALAN WILLIAM	70/42195	23/12/51	25/09/70	08/02/71
SCOTT, ALLAN CAMERON	70/42194	28/07/52	25/09/70	08/07/73
SCOTT, GRAHAM	70/42196	15/11/50	25/09/70	28/04/73
SECCOMBE, MALCOLM CHARLES	70/42197	23/03/52	25/09/70	08/07/73
SHAW, GRAHAM	70/42198	22/05/52	25/09/70	08/07/73
SHIELDS, JOHN DAVID	70/42199	10/09/51	25/09/70	08/07/73
SHIPPEN, THOMAS	70/42200	10/03/27	25/09/70	08/07/73

NAME	O.C.S.NO.	RIFTH	START	FINISH
SIMPSON, ROBERT NEWTON	70/42201	09/12/51	25/09/70	08/07/73
SLAIN, KEITH	70/42212	25/02/51	25/09/70	08/07/73
SLDAN, DAVID	70/42202	17/03/52	25/09/70	08/07/73
SLOWEY, JOHN	70/42203	06/08/42	25/09/70	
SMITH, ALAN RONALD MONTGOMERY	70/42204	24/03/51	25/09/70	
SMITH, ROY JOHN	70/42205	19/02/35	25/09/70	08/07/73
SOUTHWARD, COLIN	70/42206	05/09/51	25/09/70	08/07/73
SPENCER, JEREMY LLOYD	70/42207	05/02/52	25/09/70	08/07/73
STEPHENSON, ALAN PAUL	70/42208	23/04/52	25/09/70	08/07/73
STEPHENSON, GEORGE WILLIAM	70/42257	25/04/44	25/09/70	
STEWART, IAN	70/42210	09/05/51	25/09/70	
STONE, CHRISTOPHER PAUL	70/42211	21/06/51	25/09/70	08/07/73
SWINNEY, ROBERT ALAN	70/42258	28/11/36	25/09/70	
THOMAS, MALCOLM	70/42213	27/01/51	25/09/70	08/07/73
THOMPSON, MALCOLM	70/42214	30/04/52	25/09/70	
THOMPSON, NEIL ANDREW	70/42215	19/10/51	25/09/70	08/07/73
THOMPSON, PETER	70/42216	16/02/36	25/09/70	08/07/73
THOMPSON, RODNEY WILLIAM	70/42217	22/05/51	25/09/70	08/07/73
THORNTON, DEREK	70/42218	02/10/51	25/09/70	04/03/71
TODD, GRANVILLE	70/42219	29/09/50	25/09/70	08/07/73
TORP, JEFFERY ROGER	70/42220	12/08/50	25/09/70	11/07/71
UNSWORTH, JOHN PHILIP	70/42221	17/03/51	25/09/70	
URWIN, GORDON WALTER	70/42222	04/09/50	25/09/70	08/07/73
WALLACE, DAVID	70/42223	13/03/52	25/09/70	
WALLS, GEOFFREY	70/42224	16/04/52	25/09/70	08/07/73
WALSH, MICHAEL JULIAN	70/42225	03/09/50	25/09/70	08/07/73
WALT, TREVOR WILLIAM	70/42226	26/04/52	25/09/70	22/06/71
WARD, NIGEL JOHN	70/42227	26/09/51	25/09/70	08/07/73
WATSON, PETER WARDLE	70/42228	26/04/52	25/09/70	08/07/73
WEDDELL, MICHAEL	70/42229	29/04/49	25/09/70	08/07/73
WEDGEWOOD, FREDERICK JAMES S.	70/42230	26/10/51	25/09/70	08/07/73
WENTWORTH, JOHN STUART	70/42231	15/04/47	25/09/70	08/07/73
WHITCOMBE, JOSEPH NOEL	70/42232	25/12/30	25/09/70	
WHITTAKER, EDWARD	70/42233	06/10/51	25/09/70	08/07/73
WILEMAN, WALTER	70/42259	25/09/32	25/09/70	
WILKINSON, BRIAN	70/42234	15/11/33	25/09/70	08/07/73
WILLIAMS, FRANCIS JOHN	70/42235	07/10/51	25/09/70	08/07/73
WILLIAMS, NEVILLE HENRY	70/42236	20/09/51	25/09/70	08/07/73
WILSON, IAN	70/42237	11/12/49	25/09/70	
WINTER, BARRINGTON PETER	70/42238	01/12/51	25/09/70	
WIPER, MICHAEL JOHN	70/42239	18/01/52	25/09/70	08/07/73
WISHART, JOHN MACKEAND	70/42240	06/02/51	25/09/70	01/07/71
WOLSTENHOLME, COLIN	70/42241	24/01/52	25/09/70	08/07/73
WOOD, STEPHEN EDWARD	70/42264	14/12/42	25/09/70	
WOODCOCK, COLIN JOHN LINTON	70/42242	28/11/51	25/09/70	08/07/73
WOODHOUSE, PETER JAMES	70/42243	25/09/47	25/09/70	04/12/70
YOUNG, ROBERT	70/42244	12/06/51	25/09/70	
YULLE, JOHN LAWRENCE	70/42245	16/03/51	25/09/70	08/07/73

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BCRS...BFDE COLLEGE RECORD SYSTEM

PROGRAMME R	
OPTION REQUESTED	5
YEAR REQUESTED	1972
PRINT INDICATOR	4

NO MAIN COURSE RECORDED

DATE OF LISTING 22/08/73

TYPE	D.E.S.NO	NAME
PGCE	72/42251	BAKER, ANDRE
PGCE	72/42252	BARNES, DAVID PHILIP
PGCE	72/42253	BELL, MICHAEL RAYMOND
PGCE	72/42254	BOWREY, PATRICK STEVEN
PGCE	72/42255	CATLIN, NICHOLAS JOHN
PGCE	72/42257	DUNSCOMB, DAVID
PGCE	72/42258	EDWARDS, PAUL MARTIN
PGCE	72/42259	FEATHERSTONE-WITTY, MARK PHILIP
PGCE	72/42260	FOSTER, ALASTAIR JOHN
PGCE	72/42261	GREENWELL, BRIAN
PGCE	72/42262	HESLOP, JOHN RONALD
PGCE	72/42263	LEWELLYN, DAVID GWYN
PGCE	72/42264	MCMAMARA, IAN EDWARD
PGCE	72/42265	MONRE, ALAN PETER
PGCE	72/42266	OGDEN, GRAEME MACLEOD
PGCE	72/42267	PARKER, DAVID GUNSON
PGCE	72/42268	SMITH, RONALD GEORGE
PGCE	72/42269	TAYLOR, ALAN FREDERICK
PGCE	72/42270	WHATMORE, JAMES CHARLES
PGCE	72/42271	YOUNG, FREDERICK DAVID
1	72/42238	ALLAN, DONALD
1	72/42239	ASKEW, MARK RUSSELL
1	72/42240	DALTON, JOHN THOMAS
1	72/42243	HEATLEY, KENNETH JOSEPH
1	72/42244	MAIDMENT, PETER
1	72/42245	MOREHEAD, WILLIAM CHARLES
1	72/42246	PIPER, TERENCE WINSTON
1	72/42247	SANDS, DAVID
1	72/42249	WHITE, WILLIAM SELWYN
1	72/42250	WOLFE, PETER LESLIE

COURSE CODE 011

DATE OF LISTING 22/08/73

TYPE D.F.S.NO NAME

1	72/42241	GOODWIN, DEREK
1	72/42242	GREEN, JOSEPH HUDSON

TYPE	D.E.S.NO	NAME
3	72/42056	AYRE, WILLIAM
3	72/42057	BALLAFD, MALCOLM
3	72/42233	BARKER, ALAN MALCOLM
3	72/42061	RATHGATE, JAMES ALAN
3	72/42078	CHAPMAN, ARTHUR ALAN
3	72/42080	CULLINGWOOD, DAVID
3	72/42085	COTTON, DAVID ANTHONY
3	72/42091	DAVISON, GENEFREY
3	72/42095	DOE, FAYMCND CLIFFORD
3	72/42104	FINDLATER, MAXWELL KERR
3	72/42112	GILFILLAN, HOWARD
3	72/42117	GRAVELING, JOHN EDWARD
3	72/42118	GRAYDON, GEOFFREY
3	72/42123	HAMILTON, IAN
3	72/42132	HINCH, JAMES ROBERTSON
3	72/42142	JACKSON, PAUL
3	72/42157	MCDONALD, JOHN
3	72/42165	MILLS, DAVID
3	72/42167	MONTGOMERY, PAUL
3	72/42169	MORPUE, ROBERT WEDDERBURN
3	72/42170	MORGAN, NEIL
3	72/42171	MURRAY, MITCHELL JOHN
3	72/42173	NEVINS, MICHAEL JOHN
3	72/42174	NICHOLSON, PETER THOMAS
3	72/42178	OLD, BRIAN LESLIE
3	72/42188	RICHARDSON, SYDNEY
3	72/42192	RUTHERFORD, JOHN FRANCIS
3	72/42202	STAYMAN, GEORGE MICHAEL
3	72/42204	STEPHENS, PHILIP MORGAN
3	72/42210	TAYLOR, JOHN BARRY
3	72/42222	WIDDINGTON, THOMAS
3	72/42228	WILSON, GEOFFREY

DATE OF LISTING 22/08/73

TYPE	D.F.S.NO	NAME
3	72/42052	ALDRIDGE, JOHN ROSS CHARLES
3	72/42097	D.SOUZA, ANDREW RICHARD JOHN
3	72/42099	ELVIN, JOHN
3	72/42101	FFATHERSTONE, DENIS RONALD
3	72/42134	HONGKISS, PAUL
3	72/42162	MEDLOCK, STUART ANTONY
3	72/42185	RAMSHAW, MARSHALL
3	72/42196	SIMPSON, JAMES
3	72/42206	STRAW, CHRISTOPHER STEPHEN
3	72/42232	YOUNG, CLIVE PHILIP

DATE OF LISTING 22/08/73

TYPE	D.F.S.NO	NAME
3	72/42053	ATHERTON, JOHN ROBERT
3	72/42058	BLACKWELL, ANFIAN ALEXANDER
3	72/42076	CARTER, TREVOR RICHARD EARL
3	72/42077	CATFPPSON, PETER
3	72/42084	COPELAND, JOSEPH STEPHEN
3	72/42090	DARWIN, DAVID CHRISTOPHER
3	72/42105	FITZSIMMONS, MALCOLM LEWIS
3	72/42115	GOSLING, BRIAN GEORGE EDWARD
3	72/42120	GRIFFIN, RICHARD CHARLES
3	72/42124	HAMILTON, MALCOLM IAN
3	72/42127	HARDY, KEITH JOHN
3	72/42133	HIRD, PETER GRAHAM
3	72/42145	KNOX, JEFFREY NICHOLAS
3	72/42150	LAUDER, IAN WILLIAM
3	72/42153	LOWEY, KENNETH
3	72/42177	O'DONNELL, PAUL ANTHONY
3	72/42187	REAY, DAVID
3	72/42199	STAINTHORPE, DAVID
3	72/42208	TAIT, ALAN
3	72/42209	TARRANT, GEOFREY PAUL
3	72/42236	TARRELL, JAMES ANDREW SCOTT
3	72/42219	WATSON, ROBERT JOHN
3	72/42231	WREN, CHRISTOPHER JOHN

DATE OF LISTING 22/08/73

TYPE	D.F.S.NO	NAME
3	72/42054	ATKINSON, GRAHAM DAVID
3	72/42073	CARR, JOHN CLENNEL
3	72/42088	CROOKS, PHILIP GERARD
3	72/42092	DEBENHAM, PAUL BRUCE
3	72/42096	DREW, GARY RONALD
3	72/42107	FOX, PAUL DOUGLAS
3	72/42108	FRANKLIN, DEREK ANTHONY AINAN
3	72/42109	GALLIE, DUNCAN ANDREW
3	72/42111	GARDINER, JOHN ROGAN
3	72/42122	HALLICAY, STEPHEN
3	72/42126	HANSON, JOHN
3	72/42129	HEDLEY, NORMAN ANTHONY
3	72/42140	HULME, ROBIN ANTHONY
3	72/42144	JOHNSTON, DEREK
3	72/42164	MIDDLETON, COLIN TYSGN
3	72/42172	MURRAY, PAUL
3	72/42176	NICOL, GARFTH JAMES
3	72/42182	PICKERING, DAVID
3	72/42184	RAMSEY, NEIL
3	72/42201	STAPLES, FRANCIS TIMOTHY
3	72/42215	TRACE, DAVID JOHN
3	72/42218	VICKERS, JOHN JAMES
3	72/42223	WILKINSON, IAN DAVID

COURSE CODE 352

DATE OF LISTING 22/08/73

TYPE	D.E.S.NO	NAME
3	72/42051	ADAMSON, COLIN TREVOR
3	72/42069	ROWES, DEBEK ARTHUR
3	72/42075	CARPENTERS, PAUL
3	72/42083	CROKE, NORMAN MEREDITH
3	72/42161	MATTHEWS, TIMOTHY JOHN
3	72/42156	MCCALL, COLIN WINTFR
3	72/42163	MERCER, NICHOLAS OLIVER ANDREW
3	72/42179	NUGHTON, DAVID
3	72/42181	PARTINGTON, PHILLIP ERIC
3	72/42186	PAW, BRIAN
3	72/42190	RIPPON, PHILIP DAVID BARTLE
3	72/42217	UNDERWOOD, HOWARD CONGLAS
3	72/42221	WHITE, PHILIP WILLIAM
3	72/42225	WILKINSON, STEPHEN ARTHUR
3	72/42226	WILLIAMS, HOWARD MARTYN
3	72/42230	WILSON, KEVIN WILLIAM

COURSE CODE 057

DATE OF LISTING 22/08/73

TYPE	D.F.S.NO	NAME
3	72/42093	DENHAM, JAMES JOHN WILLIAM
3	72/42135	HOLROYD, ANDREW CHARLES
3	72/42158	MACLEND, TORQUIL ROBERT
3	72/42207	SUMMERS, ROBERT CRUSE
3	72/42229	WILSON, JOHN MARK FLEMING

DATE OF LISTING 22/08/73

TYPE	D.F.S.NO	NAME
3	72/42058	RAMBERNUGH, PAUL ROBERT
3	72/42059	RARETT, STEPHEN
3	72/42060	RARTHOLMEW, GRAHAM JOHN
3	72/42064	BERRY, IVOR JAMES
3	72/42065	BETLEY, ANDREW
3	72/42066	BEWICK, JAMES
3	72/42072	CAMPBELL, COLIN JOHN MCNAIR
3	72/42081	COLLINS, IAN FRANCIS
3	72/42082	COLLINSON, DAVID THOMAS
3	72/42102	FERGUSON, ANDREW MICHAEL
3	72/42106	FOWKES, ROGER CHARLES
3	72/42110	GARBUTT, IAN
3	72/42113	GILL, RAYMOND CHRISTOPHER
3	72/42114	GOODWIN, TORY MICHAEL GILES
3	72/42119	GREEN, DAVID WILLIAM
3	72/42136	HOLYOME, JOHN MARK
3	72/42143	JOHN, DAVID NEIL
3	72/42145	JONES, KEITH
3	72/42147	KELLY, NEIL HAROLD
3	72/42148	KIDNEY, LANCE NICHOLAS
3	72/42154	LUMSDEN, DAVID WILLIAM
3	72/42155	LYNCH, CHRISTOPHER MICHAEL
3	72/42160	MARSHALL, STEPHEN JOHN
3	72/42166	MINTO, EDWARD JOHN
3	72/42168	MOONEY, JOHN FRANCIS
3	72/42234	PATMAN, BRIAN SAMUEL
3	72/42272	PEARCEY, PETER FRANK
3	72/42183	PILLEY, NICHOLAS JOHN
3	72/42191	ROWBOTHAM, PHILIP
3	72/42195	SIBBALD, JULIAN
3	72/42200	STANLEY-CLAMP, RICHARD STEPHEN INGLIS
3	72/42211	TAYLOR, TIMOTHY CHARLES HARCOURT
3	72/42212	THOMPSON, ROBERT
3	72/42213	THOMPSON, WILLIAM
3	72/42227	WILSON, ALAN HARDY

COURSE CODE 792

DATE OF LISTING 22/09/73

TYPE	D.F.S.NO	NAME
3	72/42062	BEANEY, MICHAEL JOSEPH
3	72/42071	BURGESS, KENNETH JOHN
3	71/42120	FOX, PIERRE
3	72/42220	WEST, JEREMY LEIGH

COURSE CODE 998

DATE OF LISTING 22/08/73

TYPE	D.E.S.NJ	NAME
3	72/42274	CARUTHERS, CHRISTOPHER JOHN
3	72/42094	DIXON, DAVID ANTON
3	72/42116	GOW, PETER DRAFFIN
3	72/42121	GUYMER, WILLIAM STEPHENSON
3	72/42130	HESKETH, NEIL WILLIAM
3	72/42198	SPEEDING, LEWIS CHRISTOPHER
3	72/42203	STEAD, JOHN CHESSWAS
3	72/42224	WILKINSON, JAMES EDWARD

DATE OF LISTING 22/11/73

TYPE	D.F.S.NO	NAME
2	72/42237	WILLIAMSON, KENNETH
3	72/42055	AUTON, PAYMOND
3	72/42063	BELL, JEFFREY LLOYD
3	72/42067	BLACKBURN, KEITH
3	72/42070	BROWN, PETER CHRISTOPHER
3	72/42086	CRAWSHAW, EVAN VAUGHAN
3	72/42087	CROOKS, CHRISTOPHER JOHN
3	72/42089	CURTIS, GRAHAM CLIFFORD
3	72/42100	FAULKS, MARTIN RICHARD
3	72/42103	FERRY, BRIAN WILLIAM
3	72/42137	HOUGHTON, TREVOR KEITH
3	72/42138	HOULDING, ROBERT RICHARD
3	72/42141	HUTCHINSON, STANLEY JAMES
3	72/42146	JONES, NORMAN
3	72/42152	LINE, STEPHEN CHARLES
3	72/42180	PARKER, JOHN DARRELL
3	72/42189	RILEY, STEWART
3	72/42193	SCOPER, ALEXANDER
3	72/42235	TEMPLE, ROBERT KEITH
3	72/42214	THWAITES, MARTIN JOSEPH EDWARD
3	72/42216	TREWARTHA, ALEC BLAIR

COURSE CODE 109

DATE OF LISTING 22/08/73

TYPE D.F.S.NO NAME

3	72/42098	EATON, GORDON STANLEY
3	72/42125	HANSEN, PAUL
3	72/42205	STEWART, JONATHAN MALCOLM

DATE OF LISTING 22/08/73

BCRS.....BEDE COLLEGE RECORD SYSTEM

PROGRAMME F
OPTION REQUESTED 1
YEAR REQUESTED 1972

MRL REQUESTED 111
WCR REQUESTED *

72/42097 ERROR RETURNED.....FAMILY POSITION (10/14)

1972 FILE.....BEDE COLLEGE GENERAL FREQUENCIES

219 STUDENTS INCLUDED

71/42120	72/42051	72/42052	72/42053	72/42054	72/42055	72/42056	72/42057	72/42058	72/42059
72/42063	72/42061	72/42062	72/42063	72/42064	72/42065	72/42066	72/42067	72/42068	72/42069
72/42076	72/42071	72/42072	72/42073	72/42074	72/42075	72/42076	72/42077	72/42078	72/42079
72/42083	72/42081	72/42082	72/42083	72/42084	72/42085	72/42086	72/42087	72/42088	72/42089
72/42090	72/42091	72/42092	72/42093	72/42094	72/42095	72/42096	72/42097	72/42098	72/42099
72/42100	72/42101	72/42102	72/42103	72/42104	72/42105	72/42106	72/42107	72/42108	72/42109
72/42110	72/42111	72/42112	72/42113	72/42114	72/42115	72/42116	72/42117	72/42118	72/42119
72/42120	72/42121	72/42122	72/42123	72/42124	72/42125	72/42126	72/42127	72/42128	72/42129
72/42132	72/42133	72/42134	72/42135	72/42136	72/42137	72/42138	72/42139	72/42140	72/42141
72/42142	72/42143	72/42144	72/42145	72/42146	72/42147	72/42148	72/42149	72/42150	72/42151
72/42152	72/42153	72/42154	72/42155	72/42156	72/42157	72/42158	72/42159	72/42161	72/42162
72/42163	72/42164	72/42165	72/42166	72/42167	72/42168	72/42169	72/42170	72/42171	72/42172
72/42173	72/42174	72/42175	72/42176	72/42177	72/42178	72/42179	72/42180	72/42181	72/42182
72/42183	72/42184	72/42185	72/42186	72/42187	72/42188	72/42189	72/42190	72/42191	72/42192
72/42193	72/42195	72/42196	72/42197	72/42198	72/42199	72/42200	72/42201	72/42202	72/42203
72/42204	72/42205	72/42206	72/42207	72/42208	72/42209	72/42210	72/42211	72/42212	72/42213
72/42214	72/42215	72/42216	72/42217	72/42218	72/42219	72/42220	72/42221	72/42222	72/42223
72/42224	72/42225	72/42226	72/42227	72/42228	72/42229	72/42230	72/42231	72/42232	72/42233
72/42234	72/42235	72/42236	72/42237	72/42238	72/42239	72/42240	72/42241	72/42242	72/42243
72/42244	72/42245	72/42246	72/42247	72/42248	72/42249	72/42250	72/42251	72/42252	72/42253
72/42254	72/42255	72/42256	72/42257	72/42258	72/42259	72/42260	72/42261	72/42262	72/42263
72/42264	72/42265	72/42266	72/42267	72/42268	72/42269	72/42270	72/42271	72/42272	

FREQUENCY TABLE KEYS

MARITAL STATUS

- 1 SINGLE
- 2 MARRIED
- 3 DIVORCED/WID

GEOGRAPHICAL REGION

- A SCOTLAND AND NORTHERN IRELAND
- B NORTHERN
- C YORKSHIRE AND HUMBERSHIRE
- D NORTH WEST
- E EAST MIDLAND
- F WEST MIDLAND
- G WALES AND MONMOUTH
- H SOUTH WEST
- I EAST ANGLIA
- J SOUTH EAST
- K OTHER/ABROAD

NOT CODED PRIOR TO 1972

SETTLEMENT

- 1 ROADSIDE OR HAMLET I.E. LESS THAN 150 PEOPLE
- 2 VILLAGE OR SMALL TOWN I.E. 150 TO 2,500 PEOPLE
- 3 TOWN I.E. 2,500 TO 10,000 PEOPLE
- 4 LARGE TOWN I.E. 10,000 TO 500,000 PEOPLE
- 5 METROPOLIS I.E. OVER 500,000 PEOPLE
- 6 N/A

SETTLEMENT PRIOR TO 1972

- 1 METROPOLITAN (LARGE CITY CENTRE)
- 2 SUBURBAN (OUTSKIRTS OF LARGE CITY)
- 3 RURAL URBAN (SMALL TOWN OR VILLAGE)
- 4 RURAL

OCCUPATION IF OVER 25

- 0 OTHER
- 1 TEACHING OR YOUTH SERVICE
- 2 CENTRAL OR LOCAL GOVERNMENT
- 3 H.M. FORCES
- 4 POLICE
- 5 NURSING
- 6 OTHER MEDICAL OR WELFARE SERVICE
- 7 BANKING/INSURANCE/ACCOUNTANCY
- 8 COMMERCE
- 9 INDUSTRY

STUDENT/PARENT/GUARDIAN OCCUPATION

- 1 HIGHER ADMINISTRATIVE PROFESSIONAL AND MANAGERIAL
- 2 FARMERS, INTERMEDIATE ADMINISTRATIVE PROFESSIONAL & MANAGERIAL
- 3 ROUTINE NON-MANUAL AND SERVICE, MANUAL SKILLED
- 4 SEMI-SKILLED WORKERS
- 5 UNSKILLED WORKERS

RELIGION

- 1 C. OF E.
- 2 R.C.
- 3 NONCONFORMIST
- 4 OTHER RELIGION
- 5 HUMANIST/AGNOSTIC/ATHEIST

SCHOOL TYPE

- 1 INDEPENDENT OR DIRECT GRANT SCHOOL...MIXED
- 2 INDEPENDENT OR DIRECT GRANT SCHOOL...SINGLE SEX
- 3 GRAMMAR...MIXED
- 4 GRAMMAR...SINGLE SEX
- 5 COMPREHENSIVE...MIXED
- 6 COMPREHENSIVE ...SINGLE SEX
- 7 SEC. MODERN SCHOOL...MIXED
- 8 SEC. MODERN SCHOOL...SINGLE SEX
- 9 COLL. OF FURTHER EDUCATION/TECHNICAL COLL

STUDENT/PARENT/GUARDIAN OCCUPATION PRIOR TO 1972

- 1 PROFESSIONAL AND HIGH ADMINISTRATIVE
- 2 MANAGERIAL AND EXECUTIVE
- 3 NON-MANUAL, HIGHER GRADE
- 4 NON-MANUAL, LOWER GRADE
- 5 SKILLED MANUAL
- 6 SEMI-SKILLED MANUAL

RELIGION PRIOR TO 1972

- 1 C. OF E.
- 2 P.C.
- 3 NONCONFORMIST
- 4 JEWISH
- 5 AGNOSTIC/ATHEIST
- 6 HUMANIST/OTHER

FREQUENCIES (TOTALS PERCENTAGES)

SEX FREQUENCY

MALE 219 100.00
FEMALE 0 0.00

AGE FREQUENCY ON ADMISSION

UNDER 25 185 84.47
OVER 25 34 15.52

AVERAGE AGE ON ADMISSION
21

MARITAL STATUS

1 186 84.93
2 33 15.07
3 0 0.00

GEOGRAPHICAL REGION

A 10 4.57
B 96 43.84
C 25 11.87
D 24 10.96
E 11 5.02
F 2 0.91
G 1 0.46
H 9 4.11
I 3 1.37
J 34 15.52
K 3 1.37

NOT CODED PRIOR TO 1972

SETTLEMENT

1 5 2.28
2 42 19.18
3 45 20.55
4 98 44.75
5 27 12.33
6 2 0.91

SETTLEMENT PRIOR TO 1972

1 0 0.00
2 0 0.00
3 0 0.00
4 0 0.00

OCCUPATION IF OVER 25

0 8 3.65
1 1 0.46
2 3 1.37
3 1 0.46
4 0 0.00
5 0 0.00
6 1 0.46
7 2 0.91
8 3 1.37
9 15 6.85
UNDER 25 185 84.47

STUDENT OCCUPATION		PARENT/GUARDIAN OCCUPATION		STUDENT OCCUPATION PRIOR TO 1972		PARENT/GUARDIAN OCCUPATION PRIOR TO 1972	
1	5	2.28	45	1	0	0	0.00
2	32	14.61	78	2	0	0	0.00
3	26	11.87	72	3	0	0	0.00
4	2	0.91	11	4	0	0	0.00
5		0.91	13	5	0	0	0.00
a SCHOOL	152	69.41		6	0	0	0.00

SCHOOL TYPE	
1	10
2	58
3	71
4	48
5	32
6	4
7	34
8	18
9	93
UNKNOWN	18

RELIGION	
1	135
2	13
3	25
4	18
5	28

RELIGION PRIOR TO 1972	
1	0
2	0
3	0
4	0
5	0
6	0

POSITION IN FAMILY									
1	2	3	4	5	6	7	8	9	10
1	30	48	20	12	2	1	0	0	0
2	X	33	20	7	3	0	0	0	0
3	X	X	19	2	1	0	1	0	0
4	X	X	X	6	3	0	0	1	0
5	X	X	X	X	2	0	0	0	0
6	X	X	X	X	0	0	0	1	0
7	X	X	X	X	X	0	0	0	0
8	X	X	X	X	X	X	0	1	0
9	X	X	X	X	X	X	X	1	0
10	X	X	X	X	X	X	X	1	0

DATE OF LISTING 22/08/73

BCRS...BFDE COLLEGE RECORD SYSTEM

PROGRAMME F	
OPTION REQUESTED	2
YEAR REQUESTED	1972
WRL REQUESTED	111
WCR REQUESTED	*

FREQUENCY COUNT FOR REQUEST 1<21

144 STUDENTS INCLUDED

71/42120	72/42051	72/42053	72/42054	72/42056	72/42059	72/42060	72/42061	72/42062
72/42063	72/42064	72/42065	72/42068	72/42069	72/42070	72/42071	72/42072	72/42074
72/42076	72/42078	72/42080	72/42081	72/42082	72/42083	72/42084	72/42085	72/42089
72/42090	72/42091	72/42092	72/42093	72/42094	72/42095	72/42096	72/42098	72/42100
72/42101	72/42104	72/42105	72/42106	72/42107	72/42109	72/42110	72/42112	72/42116
72/42117	72/42118	72/42119	72/42120	72/42122	72/42123	72/42124	72/42125	72/42129
72/42130	72/42132	72/42133	72/42134	72/42135	72/42136	72/42137	72/42138	72/42140
72/42141	72/42142	72/42143	72/42144	72/42145	72/42146	72/42147	72/42148	72/42151
72/42152	72/42153	72/42158	72/42160	72/42161	72/42162	72/42163	72/42165	72/42167
72/42168	72/42169	72/42171	72/42172	72/42173	72/42174	72/42175	72/42176	72/42178
72/42179	72/42180	72/42181	72/42182	72/42183	72/42184	72/42186	72/42187	72/42191
72/42192	72/42193	72/42195	72/42198	72/42200	72/42201	72/42202	72/42203	72/42206
72/42207	72/42208	72/42209	72/42210	72/42211	72/42213	72/42214	72/42215	72/42217
72/42218	72/42220	72/42221	72/42223	72/42225	72/42226	72/42228	72/42229	72/42231
72/42232	72/42233	72/42234	72/42235					

DATE OF LISTING 22/08/73

BCRS...BENE COLLEGE RECORD SYSTEM

PROGRAMME F
OPTION REQUESTED 2
YEAR REQUESTED 1972

MRL REQUESTED 111
MCR REQUESTED *
FREQUENCY TABLES REQUIRED

FREQUENCY COUNT FOR REQUEST 1<21

144 STUDENTS INCLUDED

71/42120	72/42051	72/42053	72/42054	72/42056	72/42058	72/42059	72/42060	72/42061	72/42062
72/42063	72/42064	72/42065	72/42068	72/42069	72/42070	72/42071	72/42072	72/42073	72/42074
72/42076	72/42078	72/42080	72/42081	72/42082	72/42083	72/42084	72/42085	72/42087	72/42089
72/42090	72/42091	72/42092	72/42093	72/42094	72/42095	72/42096	72/42098	72/42099	72/42100
72/42101	72/42104	72/42105	72/42106	72/42107	72/42109	72/42110	72/42112	72/42113	72/42116
72/42117	72/42118	72/42119	72/42120	72/42122	72/42123	72/42124	72/42125	72/42127	72/42129
72/42130	72/42132	72/42133	72/42134	72/42135	72/42136	72/42137	72/42138	72/42139	72/42140
72/42141	72/42142	72/42143	72/42144	72/42145	72/42146	72/42147	72/42148	72/42150	72/42151
72/42152	72/42153	72/42158	72/42160	72/42161	72/42162	72/42163	72/42165	72/42166	72/42167
72/42168	72/42169	72/42171	72/42172	72/42173	72/42174	72/42175	72/42176	72/42177	72/42178
72/42179	72/42180	72/42181	72/42182	72/42183	72/42194	72/42186	72/42187	72/42188	72/42191
72/42192	72/42193	72/42195	72/42198	72/42200	72/42201	72/42202	72/42203	72/42204	72/42206
72/42207	72/42208	72/42209	72/42210	72/42211	72/42213	72/42214	72/42215	72/42216	72/42217
72/42218	72/42220	72/42221	72/42223	72/42225	72/42226	72/42228	72/42229	72/42230	72/42231
72/42232	72/42233	72/42234	72/42235						

FREQUENCY TABLE KEYS

MARITAL STATUS

- 1 SINGLE
- 2 MARRIED
- 3 DIVORCED/WID

GEOGRAPHICAL REGION

- A SCOTLAND AND NORTHERN IRELAND
- B NORTHERN
- C YORKSHIRE AND HUMBERSIDE
- D NORTH WEST
- E EAST MIDLAND
- F WEST MIDLAND
- G WALES AND MONMOUTH
- H SOUTH WEST
- I EAST ANGLIA
- J SOUTH EAST
- K OTHER/ABROAD

SETTLEMENT

- 1 ROADSIDE OR HAMLET I.E. LESS THAN 150 PEOPLE
- 2 VILLAGE OR SMALL TOWN I.E. 150 TO 2,500 PEOPLE
- 3 TOWN I.E. 2,500 TO 10,000 PEOPLE
- 4 LARGE TOWN I.E. 10,000 TO 500,000 PEOPLE
- 5 METROPOLIS I.E. OVER 500,000 PEOPLE
- 6 N/A

OCCUPATION IF OVER 25

- 0 OTHER
- 1 TEACHING OR YOUTH SERVICE
- 2 CENTRAL OR LOCAL GOVERNMENT
- 3 H.M. FORCES
- 4 POLICE
- 5 NURSING
- 6 OTHER MEDICAL OR WELFARE SERVICE
- 7 BANKING/INSURANCE/ACCOUNTANCY
- 8 COMMERCE
- 9 INDUSTRY

NOT CODED PRIOR TO 1972

SETTLEMENT PRIOR TO 1972

- 1 METROPOLITAN (LARGE CITY CENTRE)
- 2 SUBURBAN (OUTSKIRTS OF LARGE CITY)
- 3 RURAL URBAN (SMALL TOWN OR VILLAGE)
- 4 RURAL

STUDENT/PARENT/GUARDIAN OCCUPATION

- 1 HIGHER ADMINISTRATIVE PROFESSIONAL AND MANAGERIAL
- 2 FARMERS, INTERMEDIATE ADMINISTRATIVE PROFESSIONAL & MANAGERIAL
- 3 ROUTINE NON-MANUAL AND SERVICE, MANUAL SKILLED
- 4 SEMI-SKILLED WORKERS
- 5 UNSKILLED WORKERS

RELIGION

- 1 C. OF E.
- 2 R.C.
- 3 NONCONFORMIST
- 4 OTHER RELIGION
- 5 HUMANIST/AGNOSTIC/ATHEIST

STUDENT/PARENT/GUARDIAN OCCUPATION PRIOR TO 1972

- 1 PROFESSIONAL AND HIGH ADMINISTRATIVE
- 2 MANAGERIAL AND EXECUTIVE
- 3 NON-MANUAL, HIGHER GRADE
- 4 NON-MANUAL, LOWER GRADE
- 5 SKILLED MANUAL
- 6 SEMI-SKILLED MANUAL

RELIGION PRIOR TO 1972

- 1 C. OF E.
- 2 R.C.
- 3 NONCONFORMIST
- 4 JEWISH
- 5 AGNOSTIC/ATHEIST
- 6 HUMANIST/OTHER

SCHOOL TYPE

- 1 INDEPENDENT OR DIRECT GRANT SCHOOL...MIXED
- 2 INDEPENDENT OR DIRECT GRANT SCHOOL...SINGLE SEX
- 3 GRAMMAR...MIXED
- 4 GRAMMAR...SINGLE SEX
- 5 COMPREHENSIVE...MIXED
- 6 COMPREHENSIVE...SINGLE SEX
- 7 SEC. MODERN SCHOOL...MIXED
- 8 SEC. MODERN SCHOOL...SINGLE SEX
- 9 COLL. OF FURTHER EDUCATION/TECHNICAL COLL

FREQUENCIES (TOTALS PERCENT AGES)

SEX FREQUENCY

MALE 144 100.00
FEMALE 0 0.00

AGE FREQUENCY ON ADMISSION

UNDER 25 144 100.00
OVER 25 0 0.00

AVERAGE AGE ON ADMISSION
19

MARITAL STATUS

1 144 100.00
2 0 0.00
3 0 0.00

GEOGRAPHICAL REGION

A 9 6.25
B 61 42.36
C 16 11.11
D 19 13.19
E 8 5.55
F 1 0.69
G 1 0.69
H 3 2.08
I 2 1.39
J 23 15.97
K 1 0.69

NOT CODED PRIOR TO 1972

SETTLEMENT

1 3 2.08
2 30 20.83
3 28 19.44
4 65 45.14
5 17 11.80
6 1 0.69

SETTLEMENT PRIOR TO 1972

1 0 0.00
2 0 0.00
3 0 0.00
4 0 0.00

OCCUPATION IF OVER 25

0 0 0.00
1 0 0.00
2 0 0.00
3 0 0.00
4 0 0.00
5 0 0.00
6 0 0.00
7 0 0.00
8 0 0.00
9 0 0.00
UNDER 25 144 100.00

STUDENT OCCUPATION

PARENT/GUARDIAN OCCUPATION

STUDENT OCCUPATION
PRIOR TO 1972

PARENT/GUARDIAN OCCUPATION
PRIOR TO 1972

1	0	6.00	33	22.92
2	7	4.86	57	39.58
3	5	4.17	41	28.47
4	1	7.69	7	4.85
5	1	0.69	6	4.17

a SCHOOL 129 89.58

1	0	0.00	0	0.00
2	0	0.00	0	0.00
3	0	0.00	0	0.00
4	0	0.00	0	0.00
5	0	0.00	0	0.00
6	0	0.00	0	0.00

SCHOOL TYPE

1	5	3.47
2	33	22.92
3	53	36.80
4	46	31.94
5	30	20.83
6	4	2.78
7	23	15.97
8	8	5.55
9	22	15.28
UNKNOWN	7	4.85

RELIGION

1	98	68.05
2	6	4.17
3	13	9.03
4	14	9.72
5	13	9.03

RELIGION PRIOR TO 1972

1	0	0.00
2	0	0.00
3	0	0.00
4	0	0.00
5	0	0.00
6	0	0.00

POSITION IN FAMILY

1	1	2	3	4	5	6	7	8	9	10
1	22	30	17	11	1	1	1	0	0	0
2	X	21	13	5	2	0	0	0	0	0
3	X	X	10	2	1	1	0	1	0	0
4	X	X	X	3	1	0	0	0	0	0
5	X	X	X	X	0	0	1	0	0	0
6	X	X	X	X	0	0	0	0	0	0
7	X	X	X	X	0	0	0	0	0	0
8	X	X	X	X	0	0	0	0	0	0
9	X	X	X	X	0	0	0	0	0	0
10	X	X	X	X	0	0	0	0	0	0

DATE OF LISTING 22/C8/73

BCRS...AFDE COLLEGE RECORD SYSTEM

PROGRAMME F	
OPTION REQUESTED	2
YEAR REQUESTED	1972
WRL REQUESTED	111
WCR REQUESTED	#

FREQUENCY COUNT FOR REQUEST 1<25 & 3=2

8 STUDENTS INCLUDED

72/42157	72/42170	72/42196	72/42222	72/42255	72/42257	72/42261	72/42266
DATE OF LISTING 22/08/73							

BCRS...BFDE COLLEGE RECORD SYSTEM

PROGRAMME I
OPTION REQUESTED 1
YEAR REQUESTED 1972

WRL REQUESTED 111
WCR REQUESTED +
YEAR OF TEST F

71/42120 HAS NO CORRESPONDING DATA
72/42092 HAS NO CORRESPONDING DATA
72/42094 HAS NO CORRESPONDING DATA
72/42114 HAS NO CORRESPONDING DATA
72/42147 HAS NO CORRESPONDING DATA
72/42175 HAS NO CORRESPONDING DATA
72/42176 HAS NO CORRESPONDING DATA
72/42191 HAS NO CORRESPONDING DATA
72/42203 HAS NO CORRESPONDING DATA
72/42236 HAS NO CORRESPONDING DATA
72/42251 HAS NO CORRESPONDING DATA
72/42252 HAS NO CORRESPONDING DATA
72/42253 HAS NO CORRESPONDING DATA
72/42254 HAS NO CORRESPONDING DATA
72/42255 HAS NO CORRESPONDING DATA
72/42256 HAS NO CORRESPONDING DATA
72/42257 HAS NO CORRESPONDING DATA
72/42258 HAS NO CORRESPONDING DATA
72/42259 HAS NO CORRESPONDING DATA
72/42260 HAS NO CORRESPONDING DATA
72/42261 HAS NO CORRESPONDING DATA
72/42262 HAS NO CORRESPONDING DATA
72/42263 HAS NO CORRESPONDING DATA
72/42264 HAS NO CORRESPONDING DATA
72/42265 HAS NO CORRESPONDING DATA
72/42266 HAS NO CORRESPONDING DATA
72/42267 HAS NO CORRESPONDING DATA
72/42268 HAS NO CORRESPONDING DATA
72/42269 HAS NO CORRESPONDING DATA
72/42270 HAS NO CORRESPONDING DATA
72/42271 HAS NO CORRESPONDING DATA

1972 FILE.....INTELLIGENCE TEST TOTALS (MEANS) ST. DEV

188 STUDENTS INCLUDED

72/42051 72/42052 72/42053 72/42054 72/42055 72/42056 72/42057 72/42058 72/42059 72/42060
72/42061 72/42062 72/42063 72/42064 72/42065 72/42066 72/42067 72/42068 72/42069 72/42070
72/42071 72/42072 72/42073 72/42074 72/42075 72/42076 72/42077 72/42078 72/42079 72/42080
72/42081 72/42082 72/42083 72/42084 72/42085 72/42086 72/42087 72/42088 72/42089 72/42090
72/42091 72/42093 72/42095 72/42096 72/42097 72/42098 72/42099 72/42100 72/42101 72/42102
72/42103 72/42104 72/42105 72/42106 72/42107 72/42108 72/42109 72/42110 72/42111 72/42112
72/42113 72/42115 72/42116 72/42117 72/42118 72/42119 72/42120 72/42121 72/42122 72/42123
72/42124 72/42125 72/42126 72/42127 72/42129 72/42130 72/42132 72/42133 72/42134 72/42135
72/42136 72/42137 72/42138 72/42139 72/42140 72/42141 72/42142 72/42143 72/42144 72/42145

72/42146	72/42148	72/42149	72/42150	72/42151	72/42152	72/42153	72/42154	72/42155	72/42156
72/42157	72/42158	72/42159	72/42161	72/42162	72/42163	72/42164	72/42165	72/42166	72/42167
72/42168	72/42169	72/42170	72/42171	72/42172	72/42173	72/42174	72/42177	72/42178	72/42179
72/42180	72/42181	72/42182	72/42183	72/42184	72/42185	72/42186	72/42187	72/42188	72/42189
72/42190	72/42192	72/42193	72/42195	72/42196	72/42197	72/42198	72/42199	72/42200	72/42201
72/42202	72/42204	72/42205	72/42206	72/42207	72/42208	72/42209	72/42210	72/42211	72/42212
72/42213	72/42214	72/42215	72/42216	72/42217	72/42218	72/42219	72/42220	72/42221	72/42222
72/42223	72/42224	72/42225	72/42226	72/42227	72/42228	72/42229	72/42230	72/42231	72/42232
72/42233	72/42234	72/42235	72/42237	72/42238	72/42239	72/42240	72/42241	72/42242	72/42243
72/42244	72/42245	72/42246	72/42247	72/42248	72/42249	72/42250	72/42272		

TEST	TOTAL	MEAN	ST.DEV	TOTAL	MEAN	ST.DEV
VALUES(1)	6014	31.99	6.72			
(2)	5894	31.35	7.15			
(3)	4983	26.51	8.21			
(4)	7714	41.73	6.45			
(5)	4632	24.64	6.35			
(6)	4433	23.58	11.51			
D.SCALE	29621	157.56	23.42			
A.H.4(1)	8026	42.66	6.75			
(2)	9333	49.64	8.49			
				STFN SCORES		
P.F.16(A)	1992	17.67	2.91	1148	6.11	1.68
(B)	1544	8.21	2.02	1153	6.13	2.15
(C)	2627	13.97	3.82	889	4.73	1.96
(E)	2570	13.67	4.22	1011	5.38	2.11
(F)	3111	16.55	4.91	1152	5.13	2.27
(G)	2191	11.65	4.01	936	4.98	2.14
(H)	2364	12.57	5.13	995	5.29	1.97
(I)	2175	11.20	3.35	1290	6.86	1.86
(L)	1892	17.66	3.47	1104	5.87	2.16
(M)	2405	12.79	3.44	1152	6.13	1.89
(N)	1807	9.61	3.18	859	4.57	2.26
(O)	2024	17.77	4.10	1121	5.96	2.23
(Q1)	1919	17.21	2.83	1121	5.96	2.02
(Q2)	1966	17.46	3.63	1177	5.89	1.99
(Q3)	1831	9.74	3.18	994	5.29	1.98
(Q4)	2337	12.43	4.79	1049	5.58	1.95

DATE OF LISTING 22/08/73

BCRS...BEDF COLLEGE RECORD SYSTEM

PROGRAMME 1
OPTION REQUESTED 2
YEAR REQUESTED 1972

WRL REQUESTED 111
WCR REQUESTED +
YEAR OF TEST F

71/42120 HAS NO CORRESPONDING DATA
72/42092 HAS NO CORRESPONDING DATA
72/42094 HAS NO CORRESPONDING DATA
72/42114 HAS NO CORRESPONDING DATA
72/42147 HAS NO CORRESPONDING DATA
72/42175 HAS NO CORRESPONDING DATA
72/42176 HAS NO CORRESPONDING DATA
72/42191 HAS NO CORRESPONDING DATA
72/42203 HAS NO CORRESPONDING DATA
72/42236 HAS NO CORRESPONDING DATA
72/42251 HAS NO CORRESPONDING DATA
72/42252 HAS NO CORRESPONDING DATA
72/42253 HAS NO CORRESPONDING DATA
72/42254 HAS NO CORRESPONDING DATA
72/42255 HAS NO CORRESPONDING DATA
72/42256 HAS NO CORRESPONDING DATA
72/42257 HAS NO CORRESPONDING DATA
72/42258 HAS NO CORRESPONDING DATA
72/42259 HAS NO CORRESPONDING DATA
72/42260 HAS NO CORRESPONDING DATA
72/42261 HAS NO CORRESPONDING DATA
72/42262 HAS NO CORRESPONDING DATA
72/42263 HAS NO CORRESPONDING DATA
72/42264 HAS NO CORRESPONDING DATA
72/42265 HAS NO CORRESPONDING DATA
72/42266 HAS NO CORRESPONDING DATA
72/42267 HAS NO CORRESPONDING DATA
72/42268 HAS NO CORRESPONDING DATA
72/42269 HAS NO CORRESPONDING DATA
72/42270 HAS NO CORRESPONDING DATA
72/42271 HAS NO CORRESPONDING DATA

1972 FILE.....INTELLIGENCE TEST FREQUENCY COUNTS

188 STUDENTS INCLUDED

72/42051 72/42052 72/42053 72/42054 72/42055 72/42056 72/42057 72/42058 72/42059 72/42060
72/42061 72/42062 72/42063 72/42064 72/42065 72/42066 72/42067 72/42068 72/42069 72/42070
72/42071 72/42072 72/42073 72/42074 72/42075 72/42076 72/42077 72/42078 72/42079 72/42080
72/42081 72/42082 72/42083 72/42084 72/42085 72/42086 72/42087 72/42088 72/42089 72/42090
72/42091 72/42093 72/42095 72/42096 72/42097 72/42098 72/42099 72/42100 72/42101 72/42102
72/42103 72/42104 72/42105 72/42106 72/42107 72/42108 72/42109 72/42110 72/42111 72/42112
72/42113 72/42115 72/42116 72/42117 72/42118 72/42119 72/42120 72/42121 72/42122 72/42123
72/42124 72/42125 72/42126 72/42127 72/42129 72/42130 72/42132 72/42133 72/42134 72/42135
72/42136 72/42137 72/42138 72/42139 72/42140 72/42141 72/42142 72/42143 72/42144 72/42145

72/42146	72/42148	72/42149	72/42150	72/42151	72/42152	72/42153	72/42154	72/42155	72/42156
72/42157	72/42158	72/42160	72/42161	72/42162	72/42163	72/42164	72/42165	72/42166	72/42167
72/42168	72/42169	72/42171	72/42171	72/42172	72/42173	72/42174	72/42177	72/42178	72/42179
72/42180	72/42181	72/42182	72/42183	72/42184	72/42185	72/42186	72/42187	72/42188	72/42189
72/42190	72/42192	72/42193	72/42195	72/42196	72/42197	72/42198	72/42199	72/42200	72/42201
72/42202	72/42204	72/42205	72/42206	72/42207	72/42208	72/42209	72/42210	72/42211	72/42212
72/42213	72/42214	72/42215	72/42216	72/42217	72/42218	72/42219	72/42220	72/42221	72/42222
72/42223	72/42224	72/42225	72/42226	72/42227	72/42228	72/42229	72/42230	72/42231	72/42232
72/42233	72/42234	72/42235	72/42237	72/42238	72/42239	72/42240	72/42241	72/42242	72/42243
72/42244	72/42245	72/42246	72/42247	72/42248	72/42249	72/42250	72/42272		

VALUES
SCORE

FREQUENCY

4	0	0	0	0	1
5	0	0	0	0	2
6	0	0	0	0	3
7	0	0	0	0	1
8	0	0	0	0	1
9	0	0	0	0	1
10	0	0	0	0	1
11	0	0	0	0	1
12	0	0	0	0	1
13	0	0	0	0	1
14	0	0	0	0	1
15	0	0	0	0	1
16	0	0	0	0	1
17	0	0	0	0	1
18	0	0	0	0	1
19	0	0	0	0	1
20	0	0	0	0	1
21	0	0	0	0	1
22	0	0	0	0	1
23	0	0	0	0	1
24	0	0	0	0	1
25	0	0	0	0	1
26	0	0	0	0	1
27	0	0	0	0	1
28	0	0	0	0	1
29	0	0	0	0	1
30	0	0	0	0	1
31	0	0	0	0	1
32	0	0	0	0	1
33	0	0	0	0	1
34	0	0	0	0	1
35	0	0	0	0	1
36	0	0	0	0	1
37	0	0	0	0	1
38	0	0	0	0	1
39	0	0	0	0	1
40	0	0	0	0	1
41	0	0	0	0	1
42	0	0	0	0	1
43	0	0	0	0	1
44	0	0	0	0	1
45	0	0	0	0	1
46	0	0	0	0	1
47	0	0	0	0	1
48	0	0	0	0	1
49	0	0	0	0	1
50	0	0	0	0	1
51	0	0	0	0	1
52	0	0	0	0	1
53	0	0	0	0	1
54	0	0	0	0	1
55	0	0	0	0	1
56	0	0	0	0	1

D.SCALE
SCORE

FREQUENCY

89	1
83	1
95	1
96	1
103	1
109	1
111	2
114	1
116	3
118	1
119	1
125	1
128	1
129	2
130	2
131	1
132	3
133	2
134	2
135	1
136	3
137	3
138	3
139	2
140	2
141	2
142	4
143	2
145	1
146	4
147	2
148	2
149	4
150	1
151	3
152	4
153	5
154	2
155	3
156	2
157	2
158	5
159	2
160	6
161	5
162	4
163	3
164	3
165	7
166	3
167	4
168	5
169	4
170	4
171	2
173	1
174	1

175	4
174	1
177	3
179	4
180	2
181	1
182	2
183	1
184	1
185	3
186	3
187	2
188	2
189	3
190	2
191	2
192	2
195	1
200	1
203	1
204	1
213	1
237	1

A.H.4
SCCRE

FREQUENCY

19	1	9
23	1	1
24	1	1
27	1	1
28	1	1
29	3	1
30	2	1
31	1	1
32	0	2
33	6	5
34	5	1
35	3	6
36	7	3
37	6	1
38	6	6
39	1	1
40	9	2
41	1	4
42	8	6
43	15	7
44	21	4
45	12	6
46	14	4
47	6	4
48	9	9
49	9	9
50	5	7
51	5	15
52	5	8
53	3	12
54	3	4
55	0	9
56	0	6
57	1	12
58	2	3
59	1	8
60	1	3
61	1	7
62	0	11
63	0	1
64	0	1

FREQUENCY

STEIN
SCORE

FREQUENCY

[illegible]

DATE OF LISTING 22/08/73

BCRS...BCEC COLLEGE RECORD SYSTEM

PROGRAMME I
OPTION REQUESTED 4
YEAR REQUESTED 1972

WRL REQUESTED 111
WCR REQUESTED *
YEAR OF TEST F

71/42120	HAS	NO	CORRESPONDING	DATA
72/42092	HAS	NO	CORRESPONDING	DATA
72/42094	HAS	NO	CORRESPONDING	DATA
72/42114	HAS	NO	CORRESPONDING	DATA
72/42147	HAS	NO	CORRESPONDING	DATA
72/42175	HAS	NO	CORRESPONDING	DATA
72/42176	HAS	NO	CORRESPONDING	DATA
72/42191	HAS	NO	CORRESPONDING	DATA
72/42203	HAS	NO	CORRESPONDING	DATA
72/42236	HAS	NO	CORRESPONDING	DATA
72/42251	HAS	NO	CORRESPONDING	DATA
72/42252	HAS	NO	CORRESPONDING	DATA
72/42253	HAS	NO	CORRESPONDING	DATA
72/42254	HAS	NO	CORRESPONDING	DATA
72/42255	HAS	NO	CORRESPONDING	DATA
72/42256	HAS	NO	CORRESPONDING	DATA
72/42257	HAS	NO	CORRESPONDING	DATA
72/42258	HAS	NO	CORRESPONDING	DATA
72/42259	HAS	NO	CORRESPONDING	DATA
72/42260	HAS	NO	CORRESPONDING	DATA
72/42261	HAS	NO	CORRESPONDING	DATA
72/42262	HAS	NO	CORRESPONDING	DATA
72/42263	HAS	NO	CORRESPONDING	DATA
72/42264	HAS	NO	CORRESPONDING	DATA
72/42265	HAS	NO	CORRESPONDING	DATA
72/42266	HAS	NO	CORRESPONDING	DATA
72/42267	HAS	NO	CORRESPONDING	DATA
72/42268	HAS	NO	CORRESPONDING	DATA
72/42269	HAS	NO	CORRESPONDING	DATA
72/42270	HAS	NO	CORRESPONDING	DATA
72/42271	HAS	NO	CORRESPONDING	DATA

TOTALS, MEANS, STANDARD DEVIATIONS AND FREQUENCY COUNTS FOR REQUEST 1<21

136 STUDENTS INCLUDED

72/42051	72/42053	72/42054	72/42056	72/42058	72/42059	72/42060	72/42061	72/42062	72/42063
72/42064	72/42065	72/42068	72/42069	72/42070	72/42071	72/42072	72/42073	72/42074	72/42076
72/42078	72/42080	72/42081	72/42082	72/42083	72/42084	72/42085	72/42087	72/42089	72/42090
72/42091	72/42093	72/42095	72/42096	72/42098	72/42099	72/42100	72/42101	72/42104	72/42105
72/42106	72/42107	72/42109	72/42110	72/42112	72/42113	72/42116	72/42117	72/42118	72/42119
72/42120	72/42122	72/42123	72/42124	72/42125	72/42127	72/42129	72/42130	72/42132	72/42133
72/42134	72/42135	72/42136	72/42137	72/42138	72/42139	72/42140	72/42141	72/42142	72/42143
72/42144	72/42145	72/42146	72/42148	72/42150	72/42151	72/42152	72/42153	72/42158	72/42160
72/42161	72/42162	72/42163	72/42165	72/42166	72/42167	72/42168	72/42169	72/42171	72/42172

72/42173	72/42174	72/42177	72/42178	72/42179	72/42180	72/42181	72/42182	72/42183	72/42184
72/42186	72/42187	72/42189	72/42192	72/42193	72/42195	72/42198	72/42200	72/42201	72/42202
72/42204	72/42206	72/42207	72/42208	72/42219	72/42210	72/42211	72/42213	72/42214	72/42215
72/42216	72/42217	72/42218	72/42220	72/42221	72/42223	72/42225	72/42226	72/42228	72/42229
72/42230	72/42231	72/42232	72/42233	72/42234	72/42235				

TEST	TOTAL(MEAN)ST.DEV		TOTAL(MEAN)ST.DEV	
VALUES(1)	4316(31.74)	5.93		
(2)	4318(31.75)	6.87		
(3)	3747(27.50)	7.64		
(4)	5556(47.85)	6.62		
(5)	3332(24.50)	6.37		
(6)	3112(22.88)	10.94		
D.SCALE	21830(160.51)	21.81		
A.H.4(1)	5837(42.92)	6.56		
(2)	6874(50.54)	7.90		
			STFN SCORES	
P.F.16(A)	1430(10.51)	2.92	825(6.07)	1.70
(B)	1107(8.14)	1.96	826(6.07)	2.07
(C)	1912(14.06)	3.70	648(4.76)	1.90
(E)	1882(13.84)	4.18	745(5.48)	2.11
(F)	2302(16.93)	4.85	857(6.30)	2.25
(G)	1552(11.41)	3.99	665(4.89)	2.11
(H)	1688(12.41)	5.12	709(5.21)	1.90
(I)	1524(11.21)	3.38	933(6.86)	1.86
(L)	1426(10.49)	3.50	836(6.15)	2.17
(M)	1744(12.82)	3.44	837(6.15)	1.89
(N)	1297(9.54)	3.24	616(4.53)	2.28
(O)	1502(11.04)	3.91	832(6.12)	2.10
(Q1)	1381(10.15)	2.92	803(5.90)	2.08
(Q2)	1395(10.26)	3.52	785(5.77)	1.93
(Q3)	1281(9.42)	3.15	691(5.08)	1.97
(Q4)	1763(12.96)	4.59	790(5.81)	1.85

D.SCALE
SCORE

FREQUENCY

89	1
96	1
109	1
111	1
116	1
119	1
128	1
129	1
130	1
131	1
132	1
133	1
134	1
135	1
136	1
137	1
138	1
139	2
140	1
141	2
142	3
143	2
145	1
146	3
147	1
148	2
149	1
150	1
151	1
152	3
153	5
154	2
155	2
156	2
157	1
158	5
159	1
160	5
161	4
162	3
163	3
164	3
165	5
166	3
167	3
168	3
169	3
170	4
171	2
173	1
174	1
175	2
176	1
177	3
179	3
180	1
181	1

182	2
183	1
184	1
185	3
186	3
187	1
188	1
190	1
191	1
192	2
195	1
200	1
203	1
204	1
213	1
237	1

A.P.4
SCORE

FREQUENCY

19	1	0
23	1	1
24	1	0
27	1	0
29	2	1
30	1	0
33	3	2
34	4	0
35	3	3
36	4	1
37	5	0
38	4	4
39	6	1
40	5	0
41	3	3
42	4	5
43	13	7
44	19	2
45	10	6
46	10	2
47	16	3
48	7	7
49	7	7
50	4	4
51	4	12
52	5	6
53	4	10
54	3	2
55	1	5
56	0	6
57	0	9
58	1	3
59	0	7
60	0	2
61	0	6
62	0	7
63	0	1
64	0	1

FREQUENCY

STEN
SCORE

FREQUENCY

DATE OF LISTING 22/08/73

10. D.E.S. OUTPUT LISTINGS.

10.1 THIS SECTION CONTAINS A LISTING OF THE OUTPUT REQUIRED BY THE D.E.S. FOR STUDENT ADMISSIONS.

THE FOLLOWING EXAMPLES ARE INCLUDED:

- 1 '1972' FILE LISTING (PROGRAMME R, OPTION 5)
- 2 '1972' ADMISSIONS (PROGRAMME R OPTION 10)
- 3 '1972' ADMISSIONS (PROGRAMME D)
- 4 '1972' ADMISSION CARDS LISTING

BCRS.....BFDE COLLEGE RECORD SYSTEM

PROGRAMME R	5
OPTION REQUESTED	
YEAR REQUESTED	1972

71/42120 ADMITTED IN YEAR 1971

.....RED COLLEGE DURHAM 1972.....

TYPE	O.E.S.NO	NAME	DATE OF BIRTH	COURSE	DATES	DEGREES HELD
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PGCE STUDENT(S): FOREIGN DEGREES OR EQUIVALENT

PGCE	72/42255	DEMBLING, ARTHUR GARY	15/08/49	CE/72 TO 77/73	BA	1970 PENNSYLVANIA STATE
PGCE	72/42269	TAYLOR, ALAN FREDERICK	07/10/39	CE/72 TO 77/73	1967	INST. OF METALL.

.....REDE COLLEGE DURHAM 1972.....

TYPE	D.E.S.NO	NAME	DATE OF BIRTH	COURSE	---DATES	DEGREES HELD
PGCE	72/422251	BAKER, ANDRE	13/08/45	09/72 TO	07/73	RSC 1969 SUSSEX
PGCE	72/422252	BARNES, DAVID PHILIP	02/06/51	09/72 TO	07/73	RSC 1972 WALES
PGCE	72/422253	BELL, MICHAEL RAYMOND	03/09/51	09/72 TO	07/73	PA 1972 DURHAM
PGCE	72/422254	BOWREY, PATRICK STEVEN	06/06/53	09/72 TO	07/73	RA 1972 DURHAM
PGCE	72/422255	CATLIN, NICHOLAS JOHN	19/01/50	09/72 TO	07/73	BSC 1972 EAST ANGLIA
PGCE	72/422257	DUNSCOMB, DAVID	22/11/49	09/72 TO	07/73	BA 1971 NEWCASTLE-UPON-TYNE
PGCE	72/422258	EDWARDS, PAUL MARTIN	20/08/49	09/72 TO	07/73	BA 1970 LONDON
PGCE	72/422259	FEATHERSTONE-WITTY, MARK PHILIP	02/06/46	09/72 TO	07/73	RA 1972 DURHAM
PGCE	72/422260	FOSTER, ALASTAIR JOHN	13/03/51	09/72 TO	07/73	RA 1972 DURHAM
PGCE	72/422261	GREENWELL, BRIAN	11/12/48	09/72 TO	07/73	BSC 1972 C.N.A.A.
PGCE	72/422262	HE SLOP, JOHN RONALD	22/12/47	09/72 TO	07/73	BA 1970 ESSEX
PGCE	72/422263	LEWELLYN, DAVID GWYN	27/12/47	09/72 TO	07/73	BA 1970 NEWCASTLE-UPON-TYNE
PGCE	72/422264	MCNAMARA, IAN EDWARD	02/05/50	09/72 TO	07/73	BA 1971 YORK
PGCE	72/422265	MOORE, ALAN PETER	09/08/45	09/72 TO	07/73	PA 1969 DURHAM
PGCE	72/422265	OGDEN, GRAEME MACLEOD	06/08/51	09/72 TO	07/73	BSC 1972 HULL
PGCE	72/422267	PARKER, DAVID GUNSON	25/11/46	09/72 TO	07/73	BA 1972 DURHAM
PGCE	72/422268	SMITH, RONALD GEORGE	29/12/34	09/72 TO	07/73	BA 1956 DURHAM
PGCE	72/422270	WHATMORE, JAMES CHARLES	21/04/49	09/72 TO	07/73	BA 1972 DURHAM
PGCE	72/422271	YOUNG, FREDERICK DAVID	26/08/50	09/72 TO	07/73	BA 1972 DURHAM

.....REDE COLLEGE DURHAM 1972.....

TYPE	D.E.S.NO	NAME	DATE OF BIRTH	COURSE	DATES	DEGREES HELD
1	72/42238	ALLAN, DONALD	13/05/49	09/72	TO 07/73	
1	72/42239	ASKEW, MARK RUSSELL	17/12/39	09/72	TO 07/73	
1	72/42240	DALTON, JOHN THOMAS	12/02/47	09/72	TO 07/73	
1	72/42241	GODWIN, DEREK	16/04/42	09/72	TO 07/73	
1	72/42242	GRIFFIN, JOSEPH HUDSON	03/01/28	09/72	TO 07/73	
1	72/42243	HEATLEY, KENNETH JOSEPH	22/06/43	09/72	TO 07/73	
1	72/42244	MAIDMENT, PETER	08/12/49	09/72	TO 07/73	
1	72/42245	MOPEHEAD, WILLIAM CHARLES	12/11/32	09/72	TO 07/73	
1	72/42246	PIPER, TERENCE WINSTON	06/12/47	09/72	TO 07/73	
1	72/42247	SANDS, DAVID	30/10/44	09/72	TO 07/73	
1	72/42248	SHORT, HARRY	29/09/28	09/72	TO 07/73	
1	72/42249	WHITE, WILLIAM SELWYN	12/04/46	09/72	TO 07/73	
1	72/42250	WOLFE, PETER LESLIE	01/03/32	09/72	TO 07/73	

.....REDE COLLEGE DURHAM 1972.....

TYPE	D.E.S.NO	NAME	DATE OF BIRTH	COURSE	DATES	DEGREES HELD
3	72/42251	ADAMSON, COLIN TREVOR	25/10/53	09/72 TO	07/75	
3	72/42252	ALDRIDGE, JOHN ROSS CHARLES	04/12/51	09/72 TO	07/75	
3	72/42253	ATHERTON, JOHN ROBERT	15/03/53	09/72 TO	07/75	
3	72/42254	ATKINSON, GRAHAM DAVID	30/01/54	09/72 TO	07/75	
3	72/42255	AUTON, RAYMOND	05/06/36	09/72 TO	07/75	
3	72/42256	AYRE, WILLIAM	07/05/52	09/72 TO	07/75	
3	72/42257	BALLARD, MALCOLM	13/09/48	09/72 TO	07/75	
3	72/42258	BAMBEROUGH, PAUL ROBERT	13/02/54	09/72 TO	07/75	
3	72/42233	BARKEF, ALAN MALCOLM	18/06/54	09/72 TO	07/75	
3	72/42259	BARRETT, STEPHEN	07/04/54	09/72 TO	07/75	
3	72/42260	BARTHOLOMEW, GRAHAM JOHN	13/03/54	09/72 TO	07/75	
3	72/42261	BATHGATE, JAMES ALAN	13/08/52	09/72 TO	07/75	
3	72/42262	BEANEY, MICHAEL JOSEPH	12/02/54	09/72 TO	07/75	
3	72/42263	BELL, JEFFREY LLOYD	12/12/53	09/72 TO	07/75	
3	72/42264	BERRY, IVOR JAMES	14/04/54	09/72 TO	07/75	
3	72/42265	BETLEY, ANDREW	28/05/53	09/72 TO	07/75	
3	72/42266	BEWICK, JAMES	01/03/42	09/72 TO	07/75	
3	72/42267	BLACKBURN, KEITH	10/01/38	09/72 TO	07/75	
3	72/42268	BLACKWELL, ADRIAN ALEXANDER	15/01/54	09/72 TO	07/75	
3	72/42269	BOWES, DEREK ARTHUR	26/12/53	09/72 TO	07/75	
3	72/42270	BROWN, PETER CHRISTOPHER	04/04/54	09/72 TO	07/75	
3	72/42271	BURGESS, KENNETH JOHN	17/03/54	09/72 TO	07/75	
3	72/42272	CAMPBELL, COLIN JOHN MCNAIR	06/04/53	09/72 TO	07/75	
3	72/42273	CARR, JOHN CLENNEL	24/09/53	09/72 TO	07/75	
3	72/42274	CARRUTHERS, CHRISTOPHER JOHN	07/02/53	09/72 TO	07/75	
3	72/42275	CARRUTHERS, PAUL	28/07/49	09/72 TO	07/75	
3	72/42276	CARTER, TREVOR RICHARD EARL	20/08/52	09/72 TO	07/75	
3	72/42277	CATTERSON, PETER	25/10/35	09/72 TO	07/75	
3	72/42278	CHAPMAN, ARTHUR ALAN	07/10/53	09/72 TO	07/75	
3	72/42279	CHISHOLM, ALISTAIR	11/03/50	09/72 TO	07/75	
3	72/42280	COLLINGWOOD, DAVID	24/07/54	09/72 TO	07/75	
3	72/42281	COLLINS, IAN FRANCIS	26/02/53	09/72 TO	07/75	
3	72/42282	COLLINSON, DAVID THOMAS	23/11/52	09/72 TO	07/75	
3	72/42283	COOKE, NORMAN MEREDITH	16/01/54	09/72 TO	07/75	
3	72/42284	COPELAND, JOSEPH STEPHEN	06/07/54	09/72 TO	07/75	
3	72/42285	COTTON, DAVID ANTHONY	04/05/54	09/72 TO	07/75	
3	72/42286	CRAWSHAW, EVAN VAUGHAN	30/06/51	09/72 TO	07/75	
3	72/42287	CROOKS, CHRISTOPHER JOHN	19/09/53	09/72 TO	07/75	
3	72/42288	CROOKS, PHILIP GERARD	28/03/51	09/72 TO	07/75	
3	72/42289	CURTIS, GRAHAM CLIFFORD	01/05/54	09/72 TO	07/75	
3	72/42297	D.SOUZA, ANDREW BERNARD JOHN	19/10/51	09/72 TO	07/75	
3	72/42290	DARWIN, DAVID CHRISTOPHER	25/12/52	09/72 TO	07/75	
3	72/42291	DAVISON, GEOFREY	09/04/54	09/72 TO	07/75	
3	72/42292	DEBENHAM, PAUL BRUCE	28/04/54	09/72 TO	07/75	
3	72/42293	DENHAM, JAMES JOHN WILLIAM	08/08/54	09/72 TO	07/75	
3	72/42294	DIXON, DAVID ANTON	13/04/54	09/72 TO	07/75	
3	72/42295	DOE, RAYMOND CLIFFORD	03/07/53	09/72 TO	07/75	
3	72/42296	DREW, GARY RONALD	04/05/53	09/72 TO	07/75	
3	72/42298	EATON, GORDON STANLEY	14/12/52	09/72 TO	07/75	
3	72/42299	ELVIN, JOHN	04/04/53	09/72 TO	07/75	
3	72/42100	FAULKS, MARTIN RICHARD	17/02/54	09/72 TO	07/75	
3	72/42101	FEATHERSTONE, DENIS RONALD	08/12/53	09/72 TO	07/75	
3	72/42102	FERGUSON, ANDREW MICHAEL	11/11/51	09/72 TO	07/75	
3	72/42103	FERRY, BRIAN WILLIAM	22/07/51	09/72 TO	07/75	
3	72/42104	FINDLATER, MAXWELL KERR	18/07/54	09/72 TO	07/75	

TYPE	D.E.S.NO	NAME	DATE OF BIRTH	COURSE	DATES	DEGREES HELD
3	72/42105	FITZSIMONS, MALCOLM LEWIS	15/03/53	09/72	TO 07/75	
3	72/42105	FOWKES, ROGER CHARLES	14/10/52	09/72	TO 07/75	
3	72/42107	FOX, PAUL DOUGLAS	23/04/53	09/72	TO 07/75	
3	72/42108	FRANKLIN, DEREK ANTHONY AIDAN	21/03/24	09/72	TO 07/75	
3	72/42109	GALLIE, DUNCAN ANDREW	23/03/53	09/72	TO 07/75	
3	72/42111	GARRUTT, IAN	04/10/53	09/72	TO 07/75	
3	72/42111	GARDINER, JOHN ROGAN	21/05/43	09/72	TO 07/75	
3	72/42112	GILFILLAN, HOWARD	01/03/52	09/72	TO 07/75	
3	72/42113	GILL, RAYMOND CHRISTOPHER	28/01/52	09/72	TO 07/75	
3	72/42114	GODDWIN, TOBY MICHAEL GILFS	25/07/50	09/72	TO 07/75	
3	72/42115	GOSLING, BRIAN GEORGE EDWARD	11/01/48	09/72	TO 07/75	
3	72/42116	GOW, PETER DRAFFIN	19/10/52	09/72	TO 07/75	
3	72/42117	GRAVELING, JOHN EDWARD	13/01/54	09/72	TO 07/75	
3	72/42118	GRAYDON, GENEFREY	18/06/52	09/72	TO 07/75	
3	72/42119	GREEN, DAVID WILLIAM	10/06/53	09/72	TO 07/75	
3	72/42120	GRIFFIN, RICHARD CHARLES	01/05/53	09/72	TO 07/75	
3	72/42121	GUYMER, WILLIAM STEPHENSON	01/11/49	09/72	TO 07/75	
3	72/42122	HALLIDAY, STEPHEN	09/08/54	09/72	TO 07/75	
3	72/42123	HAMILTON, IAN	01/09/54	09/72	TO 07/75	
3	72/42124	HAMILTON, MALCOLM IAN	12/07/54	09/72	TO 07/75	
3	72/42125	HANSEN, PAUL	01/11/52	09/72	TO 07/75	
3	72/42126	HANSON, JOHN	28/06/34	09/72	TO 07/75	
3	72/42127	HARDY, KEITH JOHN	24/11/52	09/72	TO 07/75	
3	72/42129	HEDLEY, NORMAN ANTHONY	04/04/54	09/72	TO 07/75	
3	72/42130	HESKETH, NEIL WILLIAM	29/10/53	09/72	TO 07/75	
3	72/42132	HINCH, JAMES ROBERTSON	02/12/53	09/72	TO 07/75	
3	72/42133	HIRD, PETER GRAHAM	03/01/53	09/72	TO 07/75	
3	72/42134	HODGKISS, PAUL	21/09/53	09/72	TO 07/75	
3	72/42135	HOLROYD, ANDREW CHARLES	20/06/53	09/72	TO 07/75	
3	72/42136	HOLYOME, JOHN MARK	15/07/53	09/72	TO 07/75	
3	72/42137	HOUGHTON, TREVOR KEITH	16/05/54	09/72	TO 07/75	
3	72/42138	HOULDING, ROBIN RICHARD	24/04/54	09/72	TO 07/75	
3	72/42139	HOWLAND, JONATHAN VICTOR	22/12/52	09/72	TO 07/75	
3	72/42140	HULME, ROBIN ANTHONY	18/12/52	09/72	TO 07/75	
3	72/42141	HUTCHINSON, STANLEY JAMES	08/07/54	09/72	TO 07/75	
3	72/42142	JACKSON, PAUL	12/04/53	09/72	TO 07/75	
3	72/42143	JOHN, DAVID NEIL	15/10/53	09/72	TO 07/75	
3	72/42144	JOHNSTON, DEREK	23/05/52	09/72	TO 07/75	
3	72/42145	JONES, KEITH	05/02/54	09/72	TO 07/75	
3	72/42146	JONES, NORMAN	26/07/54	09/72	TO 07/75	
3	72/42147	KELLY, NEIL HAROLD	07/05/52	09/72	TO 07/75	
3	72/42148	KIDNEY, LANCE NICHOLAS	24/10/52	09/72	TO 07/75	
3	72/42149	KNOX, JEFFREY NICHOLAS	18/12/51	09/72	TO 07/75	
3	72/42150	LAUDER, IAN WILLIAM	29/09/52	09/72	TO 07/75	
3	72/42151	LAWSON, CHARLES WILLIAM PAGAN	23/06/54	09/72	TO 07/75	
3	72/42152	LINE, STEPHEN CHARLES	04/06/53	09/72	TO 07/75	
3	72/42153	LOWEY, KENNETH	24/04/54	09/72	TO 07/75	
3	72/42154	LUMSDEN, DAVID WILLIAM	22/07/44	09/72	TO 07/75	
3	72/42155	LYNCH, CHRISTOPHER MICHAEL	23/09/51	09/72	TO 07/75	
3	72/42158	MACLEOD, TORQUIL ROBERT	08/04/53	09/72	TO 07/75	
3	72/42160	MARSHALL, STEPHEN JOHN	13/05/53	09/72	TO 07/75	
3	72/42161	MATTHEWS, TIMOTHY JOHN	16/09/53	09/72	TO 07/75	
3	72/42156	MCCALL, COLIN WINTER	06/05/44	09/72	TO 07/75	
3	72/42157	MCDONALD, JOHN	22/04/50	09/72	TO 07/75	
3	72/42162	MEDLOCK, STUART ANTONY	16/02/54	09/72	TO 07/75	
3	72/42163	MERCER, NICHOLAS OLIVER ANDREW	13/04/53	09/72	TO 07/75	

TYPE	D.E.S.NO	NAME	DATE OF BIRTH	COURSE	DATES	DEGREES HELD
3	72/42164	MIDDLETON, COLIN TYSON	04/05/49	09/72 TO	77/75	
3	72/42165	MILLS, DAVID	15/04/54	09/72 TO	07/75	
3	72/42166	MINTO, EDWARD JOHN	05/04/54	09/72 TO	07/75	
3	72/42167	MONTGOMERY, PAUL	29/09/52	09/72 TO	07/75	
3	72/42168	MOONEY, JOHN FRANCIS	21/01/52	09/72 TO	07/75	
3	72/42169	MOPDUE, ROBERT WEDDEBURN	23/09/52	09/72 TO	07/75	
3	72/42170	MORGAN, NEIL	15/03/49	09/72 TO	07/75	
3	72/42171	MURRAY, MITCHELL JOHN	28/07/54	09/72 TO	07/75	
3	72/42172	MURRAY, PAUL	07/08/54	09/72 TO	07/75	
3	72/42173	NEVINS, MICHAEL JOHN	24/12/52	09/72 TO	07/75	
3	72/42174	NICHOLSON, PETER THOMAS	25/12/53	09/72 TO	07/75	
3	72/42175	NICKLIN, JOHN GILSTIN	14/11/53	09/72 TO	07/75	
3	72/42176	NICOL, GARETH JAMES	05/06/54	09/72 TO	07/75	
3	72/42177	O'DONNELL, PAUL ANTHONY	16/01/53	09/72 TO	07/75	
3	72/42178	OLD, BRIAN LESLIE	23/12/53	09/72 TO	07/75	
3	72/42179	OUGHTON, DAVID	02/03/54	09/72 TO	07/75	
3	72/42180	PARKER, JOHN DARRYL	01/05/53	09/72 TO	07/75	
3	72/42181	PARTINGTON, PHILLIP ERIC	14/05/54	09/72 TO	07/75	
3	72/42234	PATMAN, BRIAN SAMUEL	23/10/53	09/72 TO	07/75	
3	72/42272	PEARCEY, PETER FRANK	19/08/46	09/72 TO	07/75	
3	72/42182	PICKERING, DAVID	25/05/54	09/72 TO	07/75	
3	72/42183	PILEY, NICHOLAS JOHN	14/05/53	09/72 TO	07/75	
3	72/42184	RAMSEY, NEIL	24/06/54	09/72 TO	07/75	
3	72/42185	RAMSHAW, MARSHALL	10/01/24	09/72 TO	07/75	
3	72/42186	RAW, BRIAN	03/02/54	09/72 TO	07/75	
3	72/42187	REAY, DAVID	22/01/54	09/72 TO	07/75	
3	72/42188	RICHARDSON, SYDNEY	05/11/53	09/72 TO	07/75	
3	72/42189	RILEY, STEWART	29/01/47	09/72 TO	07/75	
3	72/42190	RIPPCN, PHILIP DAVID BARTLE	11/08/50	09/72 TO	07/75	
3	72/42191	ROWBOTHAM, PHILIP	12/09/52	09/72 TO	07/75	
3	72/42192	RUTHERFORD, JOHN FRANCIS	08/02/54	09/72 TO	07/75	
3	72/42193	SCORER, ALEXANDER	20/12/52	09/72 TO	07/75	
3	72/42195	SIBBALD, JULIAN	29/11/52	09/72 TO	07/75	
3	72/42196	SIMPSON, JAMES	05/10/50	09/72 TO	07/75	
3	72/42197	SMITH, PHILIP	10/09/50	09/72 TO	07/75	
3	72/42198	SPEEDING, LEWIS CHRISTOPHER	18/07/54	09/72 TO	07/75	
3	72/42199	STAINTHORPE, DAVID	20/11/50	09/72 TO	07/75	
3	72/42200	STANLEY-CLAMP, RICHARD STEPHEN INGLIS	27/10/53	09/72 TO	07/75	
3	72/42201	STAPLES, FRANCIS TIMOTHY	03/03/53	09/72 TO	07/75	
3	72/42202	STAYMAN, GEORGE MICHAEL	23/10/52	09/72 TO	07/75	
3	72/42203	STEAD, JOHN CHESSMAS	18/03/52	09/72 TO	07/75	
3	72/42204	STEPHENS, PHILIP MORGAN	17/03/53	09/72 TO	07/75	
3	72/42205	STEWART, JONATHAN MALCOLM	02/11/51	09/72 TO	07/75	
3	72/42206	STRAW, CHRISTOPHER STEPHEN	08/03/53	09/72 TO	07/75	
3	72/42207	SUMMERS, ROBERT CRUSE	13/08/53	09/72 TO	07/75	
3	72/42208	TAIT, ALAN	29/05/54	09/72 TO	07/75	
3	72/42209	TARRANT, GEOFFREY PAUL	13/01/54	09/72 TO	07/75	
3	72/42236	TARRELL, JAMES ANDREW SCOTT	27/12/51	09/72 TO	07/75	
3	72/42210	TAYLOR, JOHN BARRY	27/02/54	09/72 TO	07/75	
3	72/42211	TAYLOR, TIMOTHY CHARLES HARCOURT	15/04/52	09/72 TO	07/75	
3	72/42235	TEMPLE, ROBERT KEITH	11/03/54	09/72 TO	07/75	
3	72/42212	THOMPSON, ROBERT	09/06/49	09/72 TO	07/75	
3	72/42213	THOMPSON, WILLIAM	12/08/53	09/72 TO	07/75	
3	72/42214	THWAITES, MARTIN JOSEPH EDWARD	06/07/54	09/72 TO	07/75	
3	72/42215	TRACE, DAVID JOHN	17/11/52	09/72 TO	07/75	
3	72/42216	TREWARTHA, ALEC BLAIR	09/02/52	09/72 TO	07/75	

.....BECF COLLEGE PURHAY 1972.....

TYPE	D.E.S.NO	NAME	DATE OF BIRTH	COURSE	DATES	DEGREES HELD
3	72/42217	UNDERWOOD, HOWARD EDUGLAS	23/04/54	09/72 TO	07/75	
3	72/42218	VICKERS, JOHN JAMES	11/12/52	10/72 TO	07/75	
3	72/42219	WATSON, ROBERT JOHN	20/11/51	09/72 TO	07/75	
3	72/42220	WEST, JEREMY LEIGH	29/12/53	09/72 TO	07/75	
3	72/42221	WHITE, PHILIP WILLIAM	21/05/53	09/72 TO	07/75	
3	72/42222	WIDDRINGTON, THOMAS	26/10/50	09/72 TO	07/75	
3	72/42223	WILKINSON, IAN DAVID	23/04/53	09/72 TO	07/75	
3	72/42224	WILKINSON, JAMES EDWARD	03/03/47	09/72 TO	07/75	
3	72/42225	WILKINSON, STEPHEN ARTHUR	11/03/52	09/72 TO	07/75	
3	72/42226	WILLIAMS, HOWARD RAFTYN	31/07/54	09/72 TO	07/75	
3	72/42227	WILSON, ALAN HAROLD	11/02/51	09/72 TO	07/75	
3	72/42228	WILSON, GEOFFREY	07/02/54	09/72 TO	07/75	
3	72/42229	WILSON, JOHN MARK FLEMING	24/12/52	09/72 TO	07/75	
3	72/42230	WILSON, KEVIN WILLIAM	23/03/54	09/72 TO	07/75	
3	72/42231	WREN, CHRISTOPHER JOHN	04/05/54	09/72 TO	07/75	
3	72/42232	YOUNG, CLIVE PHILIP	09/12/53	09/72 TO	07/75	

NO. OF STUDENTS 218

DATE OF LISTING 29/08/73

EXECUTION TERMINATED

BCRS...BENE COLLEGE RECORD SYSTEM

PROGRAMME R	1971
OPTION REQUESTED	
YEAR REQUESTED	1972

DES O/P REQUIRED

71/4212C ADMITTED IN YEAR 1971

DATE OF LISTING 29/08/73

BCRS...BEDD COLLEGE RECORD SYSTEM

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YEAR REQUESTED

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72/42052	TRANSACTION	01	COMPLETED
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3	7242051125653ADAMSON	COOR01 11						F	9990103
4	7242051125653ADAMSON	F 1 972775	111	1	952				9990105
5	72420521040511ALDPIDG		JCHN	ROSS	CHARLES				9990101
6	7242052104051ALDRID			302259729625				1	9990102
7	7242052104051ALDRID	COOR03 11E							9990103
8	7242052104051ALDRID	F 1 972775	E						9990105
9	72420531153531ATHERTON		JOHN	ROBERT					9990101
10	72420531153531ATHERT			405259729625				1	9990102
11	72420531153531ATHERT	COOR01 11							9990103
12	72420531153531ATHERP	F 1 972775							9990105
13	72420541301541ATKINSON		GRAHAM	DAVID					9990101
14	72420541301541ATKINS			455259729625				1	9990102
15	72420541301544TKINS	COOR03 11C							9990103
16	72420541301544TKINS	F 1 972775	111	1	051				9990105
17	72420551056361AUTON		RAYMOND						9990101
18	7242055105636AUTON			411259729625				19	9990102
19	7242055105636AUTON	COOR01 11							9990103
20	7242055105636AUTON	F 1 972775	111	1	104				9990105
21	72420561075521AYRE		WILLIAM						9990101
22	7242056107552AYRE			411259729625				1	9990102
23	7242056107552AYRE	COOR02 1							9990103
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25	72420571139481BALLARD		MALCOLM					1	9990101
26	7242057113948BALLAR			535259729625					9990102
27	7242057113948BALLAR	COOR06C 11							9990103
28	7242057113948BALLAR	F 1 972775	111	1	002				9990105
29	72420581132541BAMBEROUGH		PAUL	ROBERT					9990101
30	7242058113254BAMBER			411259729625				1	9990102
31	7242058113254BAMBER	COOR01 11							9990103
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33	72420591074541BARRETT		STEPHEN						9990101
34	7242059107454BARRET			461259729625				1	9990102
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37	72420601133541BARTHLOWEM		GRAHAM	JOHN				1	9990101
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41	72420611138521BATHGATE		JAMES	ALAN				2	9990101
42	7242061113852BATHGA			299259729625					9990102
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45	72420621122541BEANEY		MICHAEL	JOSEPH					9990101
46	7242062112254BEANEY			411259729625				1	9990102
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48	7242062112254BEANEY	F 1 972775	111	1	092				9990105
49	72420631120531BEL		JEFFREY	LLOYD					9990101

59	72420651285538ETLF	00760 11F	111	1	061	9990103
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61	724206610134218EWICK					9990101
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63	72420661013428EWICK	F 1 972775				9990103
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65	72420671101381BLACKBURN		KEITH			9990101
66	7242067110138BLACKR	00300 1				9990102
67	7242067110138BLACKR	F 1 972775	111	1	104	9990103
68	7242067110138BLACKR	F 1 972775	ADRIAN			9990105
69	72420681151541BLACKWELL					9990101
70	7242068115154BLACKW	00060 1 F				9990102
71	7242068115154BLACKW	F 1 972775	111	1	048	9990103
72	72420691260531BOWES		DEREK			9990105
73	72420691260531BOWES		ARTHUR			9990101
74	72420691260538OWES	00000 1				9990102
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76	72420691260538OWES	F 1 972775	PETER			9990105
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83	7242071117354BURGES	F 1 972775	111	1	092	9990103
84	7242071117354BURGES	F 1 972775	COLIN			9990105
85	72420721064531CAMPBELL					9990101
86	7242072106453CAMPBE	00050 1 E				9990102
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88	72420731249531CARR		JOHN			9990105
89	72420731249531CARR	00070 1 118	CLENNEL			9990101
90	7242073124953CARR	F 1 972775				9990102
91	7242073124953CARR		111	1	051	9990103
92	7242073124953CARR	F 1 972775	CHRISTOPHER			9990105
93	72420741072531CARRUTHERS					9990101
94	7242074107253CARRUT	01040 11	PAUL			9990102
95	7242074107253CARRUT	F 1 972775				9990103
96	7242074107253CARRUT	F 1 972775	111	1	098	9990105
97	72420751287491CARRUTHERS					9990101
98	7242075128749CARRUT	00050 2 1				9990102
99	7242075128749CARRUT	F 1 972775	111	1	052	9990103
100	72420761208521CARTER		TREVOR			9990105
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103	7242076120852CARTER					9990103
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105	72420771256351CATTERSON		PETER			9990101
106	7242077125635CATTERP	00060 0 11				9990102
107	7242077125635CATTER	F 1 972775	111	1	048	9990103
108	72420781076531CHAPMAN		ARTHUR			9990105
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122	7242081126253COLLIN					9990102
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165	72420921284541DEBENHAM		PAUL BRUCE			9990102
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206	7242102111-51FERGUS		431259729625			9990102
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230	7242108121324FRANKL		517259729625			9990102
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234	7242109128353GALLIE		427259729625			9990102
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236	7242109128353GALLIE	F 1 972775	111	1	051	9990105
237	72421101046531GARBUTT		IAN			9990101
238	7242110104653GARBUT		535259729625			9990102

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303	7242126128634HANSON							9990103
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306	7242127124-52HARDY							9990102
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311	7242129104454HEDELY C00401 1					F		9990103
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313	72421301296531HESEKETH NEIL WILLIAM		492259729625					9990101
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317	72421321020531HINCH JAMES ROBERTSON		509259729625					9990101
318	72421321020531HINCH							9990102
319	72421321020531HINCH C00601 11							9990103
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321	72421331031531HIRD PETER GRAHAM		472259729625					9990101
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331	7242135120653HOLROY C00902 1 E							9990103
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345	72421391220521HOWLAND JCNATHAN VICTOR		449259729625					9990101
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368	7242144123552JOHNST	F 1 972775	111	1	061			9990105
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430	7242161116953MATTHEWS						9990102
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438	72421631194531MERCER						9990102
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442	72421641045491MIDDLETON						9990102
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490	7242176106654NICHOL		514259729625		9990102
491	7242176106654NICHOL (00502 1				9990103
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496	72421771161530.DONN F 1 972775				9990105
497	724217812305310LD	BRIAN	LESLIE		9990101
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502	72421791023540UGHTON		411259729625		9990102
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505	72421801015531PARKER	JOHN	DARRELL		9990101
506	72421801015531PARKER		519259729625		9990102
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566	72421961056501SIMPSON		411259729625			9990103
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619	72422091131541TARRANT	000902 11				9990103
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622	72422101272541TAYLOR		411259729625			9990102
623	72422101272541TAYLOR	000500 11				9990103
624	72422101272541TAYLOR	F 1 972775	111	1	002	9990105
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626	7242211115452TAYLOR		440259729625			9990102
627	7242211115452TAYLOR	000602 1 C				9990103
628	7242211115452TAYLOR	F 1 972775	111	1	061	9990105
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630	7242212109640THOMPS		480259729625			9990102
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634	7242213112853THOMPS		407259729625			9990102
635	7242213112853THOMPS	000702 11C				9990103
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637	72422141067541THWAITES		MARTIN JOSEPH EDWARD			9990101
638	72422141067541THWAIT		407259729625			9990102
639	72422141067541THWAIT	000801 11				9990103
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642	7242215117-521TRACE		447259729625			9990102
643	7242215117-521TRACE	000702 11				9990103
644	7242215117-521TRACE	F 1 972775	111	1	051	9990105
645	72422161092521TREWARTH		ALEC BLAIR			9990101
646	72422161092521TREWARTH		450259729625			9990102
647	72422161092521TREWARTH	000600 11				9990103
648	72422161092521TREWARTH	F 1 972775	111	1	104	9990105
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650	72422171234541UNDERWOOD		500259729625			9990102
651	72422171234541UNDERWOOD	040500 11				9990103
652	72422171234541UNDERWOOD	F 1 972775	111	1	052	9990105
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654	72422181110521VICKERS		422259729625			9990102
655	72422181110521VICKERS	000602 11				9990103
656	72422181110521VICKERS	F 1 972775	111	1	051	9990105
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658	7242219120-511WATSON		450259729625			9990102

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661	72422201290531WEST		JEREMY LEIGH					9990101
662	72422201290531WEST		443259729625					9990102
663	72422201290531WEST							9990103
664	72422201290531WEST	C007C2 11						9990105
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666	72422211215531WHITE		423259729625					9990102
667	72422211215531WHITE	C008C4 1 B						9990103
668	72422211215531WHITE	F 1 972775						9990105
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670	72422221266501WIDDRINGTON		480259729625					9990102
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672	72422221266501WIDDRINGTON	F 1 972775	IAN DAVID					9990105
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674	72422231234531WILKINSON							9990102
675	72422231234531WILKINSON	C005C3 11F						9990103
676	72422231234531WILKINSON	F 1 972775	C					9990105
677	72422241033471WILKINSON		JAMES EDWARD					9990101
678	72422241033471WILKINSON		411259729625					9990102
679	72422241033471WILKINSON	C007C0 11						9990103
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685	72422261317541WILLIAMS		HOWARD MARTYN					9990101
686	72422261317541WILLIAMS		551259729625					9990102
687	72422261317541WILLIAMS	C005C1 1						9990103
688	72422261317541WILLIAMS	F 1 972775	ALAN HARDY					9990105
689	72422271112511WILSON		517259729625					9990101
690	72422271112511WILSON							9990102
691	72422271112511WILSON	C005C2 1 C						9990103
692	72422271112511WILSON	F 1 972775	111	1	061			9990105
693	72422281072541WILSON		GEOFFREY					9990101
694	72422281072541WILSON		431259729625					9990102
695	72422281072541WILSON	C005C0 11						9990103
696	72422281072541WILSON	F 1 972775	111	1	002			9990105
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702	72422301233541WILSON		411259729625					9990102
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704	72422301233541WILSON	F 1 972775	111	1	052			9990105
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707	72422311045541WREN	C007C2 11						9990103
708	72422311045541WREN	F 1 972775	111	1	048			9990105
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710	72422321080531YOUNG		405259729625					9990102
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712	72422321080531YOUNG	F 1 972775	111	1	011			9990105
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714	72422331186541BARKER		535259729625					9990102
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726	72422361270511TARPEL					9990102
727	72422361270511TARPEL	000611 1				9990103
728	72422361270511TARPEL	F 1 972775	111	1	048	9990105
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730	7242237114637WILLIAMSON					9990102
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732	7242237114637WILLIAMSON					9990104
733	7242237114637WILLIAMSON	F 1 9727741	111	1	104	9990105
734	7242238113549ALLAN		DONALD			9990101
735	7242238113549ALLAN					9990102
736	7242238113549ALLAN	000600 11				9990103
737	7242238113549ALLAN	F 1 972773	111	1		9990105
738	72422391170391ASKEM		MARK RUSSELL	535259729625		9990101
739	72422391170391ASKEM					9990102
740	72422391170391ASKEM	000100 1				9990103
741	72422391170391ASKEM					9990104
742	72422391170391ASKEM	F 1 972773	111	1		9990105
743	72422401122471DALTON		JOHN THOMAS	535259729625		9990101
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745	72422401122471DALTON	000903 11				9990103
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748	72422411164421G00DWIN					9990102
749	72422411164421G00DWIN	000200 1				9990103
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751	72422411164421G00DWIN	F 1 972773	111	1		9990105
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753	72422421031281GREEN					9990102
754	72422421031281GREEN	000500 1				9990103
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756	7242243122643HEATLEY		KENNETH JOSEPH	449259729625		9990101
757	7242243122643HEATLEY					9990102
758	7242243122643HEATLEY	000500				9990103
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761	72422441080491MAIDMENT					9990102
762	72422441080491MAIDMENT	000801 11				9990103
763	72422441080491MAIDMENT	F 1 972773	111	1		9990105
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765	7242245112-321MOREHEAD					9990102
766	7242245112-321MOREHEAD	000301 11				9990103
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769	72422461060471PIPER					9990102
770	72422461060471PIPER	000601 11E				9990103
771	72422461060471PIPER	F 1 972773	111	1		9990105
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773	72422471306441SANDS					9990102
774	72422471306441SANDS	000300 11				9990103
775	72422471306441SANDS					9990104
776	72422471306441SANDS	F 1 972773	111	1		9990105
777	72422481299281SHORT		HARRY			9990101
778	72422481299281SHORT					9990102

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780	724224812952RSHRT								9990104
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783	72422491124461WHTF								9990102
784	72422491124461WHTF	CCCC 11							9990103
785	72422491124461WHTF	F 1 972773	111	1					9990105
786	72422501013321WOLF		PETER LESLIE	533259729625					9990102
787	72422501013321WOLF								9990103
788	72422501013321WOLF	1CCCC 1							9990104
789	72422501013321WOLF								9990105
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792	72422511138451BAKER								9990103
793	72422511138451BAKER	CCCC 11							9990105
794	72422511138451BAKER	F 1 972773	111	1	111				9990101
795	72422521026511BARNES		DAVID PHILIP	463259729625					9990102
796	72422521026511BARNES								9990103
797	72422521026511BARNES	CCCC 11							9990105
798	72422521026511BARNES	F 1 972773	111						9990101
799	72422531089501RELL		MICHAEL RAYMOND	407259729625					9990102
800	72422531089501RELL								9990103
801	72422531089501RELL	CCCC 11B	E						9990105
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803	72422541066501BOWREY		PATRICK STEVEN	463259729625					9990103
804	72422541066501BOWREY								9990105
805	72422541066501BOWREY	CCCC 1 C	D						9990101
806	72422541066501BOWREY	F 1 972773	111						9990102
807	72422551191501CATLIN		NICHOLAS JOHN	416259729625					9990103
808	72422551191501CATLIN								9990105
809	72422551191501CATLIN	CCCC 11							9990101
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812	72422561058481DEMBLING								9990105
813	72422561058481DEMBLING	CCCC							9990101
814	72422561058481DEMBLING	F 1 972773	111	1					9990102
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816	7242257122-4910UNSCOMBE								9990105
817	7242257122-4910UNSCOMBE	CCCC 11							9990101
818	7242257122-4910UNSCOMBE	F 1 972773	111						9990102
819	72422581208491EDWARDS		PAUL MARTIN	535259729625					9990103
820	72422581208491EDWARDS								9990105
821	72422581208491EDWARDS	CCCC 11B							9990101
822	72422581208491EDWARDS	F 1 972773	111						9990102
823	72422591026461FEATHERSTONE-WITTYMARK		PHILIP	500259729625					9990103
824	72422591026461FEATHERSTONE-WITTYMARK								9990105
825	72422591026461FEATHERSTONE-WITTYMARK	CCCC 1 B	D						9990101
826	72422591026461FEATHERSTONE-WITTYMARK	F 1 972773	111						9990102
827	72422601133511FOSTER		ALASTAIR JOHN	407259729625					9990103
828	72422601133511FOSTER								9990105
829	72422601133511FOSTER	CCCC 1 E C	D						9990101
830	72422601133511FOSTER	F 1 972773	111						9990102
831	72422611110481GREENWELL		BRIAN	517259729625					9990103
832	72422611110481GREENWELL								9990105
833	72422611110481GREENWELL	CCCC							9990101
834	72422611110481GREENWELL	F 1 972773	111						9990102
835	72422621220471HESLOP		JOHN RONALD	306259729625					9990103
836	72422621220471HESLOP								9990105
837	72422621220471HESLOP	CCCC 11D							9990101
838	72422621220471HESLOP	F 1 972773	111						9990102

839	72422631270471LLEWELLYN	DAVID GWYN	511259729625			9990101
840	72422631270471LLEWEL					9990102
841	72422631270471LLEWEL	CC9				9990103
842	72422631270471LLEWEL	1				9990105
843	72422641025501MCNAMARA	IAN FOWARD	467259729625			9990101
844	72422641025501MCNAMARA					9990102
845	72422641025501MCNAMARA					9990103
846	72422641025501MCNAMARA					9990105
847	72422651098451MDORE	ALAN PETER	415259729625			9990101
848	72422651098451MDORE					9990102
849	72422651098451MDORE					9990103
850	72422651098451MDORE					9990105
851	72422661068501OGDEN	GRAEME MACLEOD	518259729625			9990101
852	72422661068501OGDEN					9990102
853	72422661068501OGDEN					9990103
854	72422661068501OGDEN					9990105
855	7242267125-461PARKER	DAVID GUNSON	411259729625			9990101
856	7242267125-461PARKER					9990102
857	7242267125-461PARKER					9990103
858	7242267125-461PARKER					9990105
859	72422681290341SMITH	PCNALD GEORGE	535259729625			9990101
860	72422681290341SMITH					9990102
861	72422681290341SMITH					9990103
862	72422681290341SMITH					9990105
863	72422691098391TAYLOR	ALAN FREDERICK	535259729625			9990101
864	72422691098391TAYLOR					9990102
865	72422691098391TAYLOR					9990103
866	72422691098391TAYLOR					9990105
867	72422701214491WHATMORE	JAMES CHARLES	315259729625			9990101
868	72422701214491WHATMORE					9990102
869	72422701214491WHATMORE					9990103
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871	72422711268501YOUNG	FREDERICK DAVID	437259729625			9990101
872	72422711268501YOUNG					9990102
873	72422711268501YOUNG					9990103
874	72422711268501YOUNG					9990105
875	7242272119846 PEARCEY	PETER FRANK	427259729625			9990101
876	7242272119846 PEARCEY					9990102
877	7242272119846 PEARCEY					9990103
878	7242272119846 PEARCEY					9990105

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